Oceanic Observations of the Pacific

OCEANIC OBSERVATIONS OF THE PACIFIC

1954

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Preface

Oceanic Observations of the Pacific is a medium for publication of oceanographic data collected in the Pacific Ocean and its adjacent seas by the cooperating agencies. At the present time these agencies are Scripps Institution of Oceanography of the University of California, San Diego, California; Biological Laboratory of the Bureau of Commercial Fisheries, Honolulu, Hawaii (formerly Pacific Oceanic Fishery Investigations); Biological Laboratory of the Bureau of Commercial Fisheries, La Jolla, California (formerly South Pacific Fishery Investigations); Biological Laboratory of the Bureau of Commercial Fisheries, Seattle, Washington (formerly Pacific Salmon Investigations); Department of Oceanography of the University of Washington, Seattle, Washington; Pacific Oceanographic Group of the Fisheries Research Board of Canada, Nanaimo, British Columbia; United States Navy Electronics Laboratory, San Diego, California. Certain cruises were carried out jointly as California Cooperative Oceanic Fisheries Investigations (CCOFI). The agencies cooperating in the CCOFI program are the Scripps Institution, the Biological Laboratory of the Bureau of Commercial Fisheries, La Jolla, the California Department of Fish and Game, the Hopkins Marine Station and the California Academy of Sciences.

In addition to the cooperating agencies, the United States Coast and Geodetic Survey, Washington, D. C., participated in two of the cruises presented in this volume.

A grant from the National Science Foundation has supported part of the cost of preparing these data for publication and most of the printing cost.

The present volume contains observations made in 1954. For each oceanographic station, values of temperature, salinity and oxygen are tabulated at observed and at standard depths. Computed values of density, specific volume anomaly or thermosteric anomaly, and geopotential anomaly are also tabulated at standard depths. In addition, some observations of phosphate are included. The positions of the serial observations and the numbers of bathythermograph observations made in 1954 and during the period 1941 through 1954 are shown on charts. Information concerning each cruise is summarized in a table.

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Description of Observations

SIGNIFICANCE OF REPORTED OCEANOGRAPHIC DATA

Routine field measurements of oceanographic parameters by conventional methods are usually subject to at least the following random errors:

depth	± 4 m (in the upper 1000 m)
temperature	± 0.02°C
salinity	± 0.03‰
oxygen	± 0.04 ml/L
phosphate	± 0.05 to 0.1 μg at/L

A recent analysis of the precision of field measurements of temperature and salinity is that of Wooster and Taft (1958). It should be noted that the above estimate of salinity precision refers to analyses by Knudsen titration.

Interpolated values at standard depths are known with less precision, and the resulting uncertainty in specific volume anomaly and thermosteric anomaly at standard depths due to random errors in field measurements of temperature, salinity and depth is of the order of three centiliters per ton. Therefore, in this publication series it is the practice to report specific volume anomaly and thermosteric anomaly to no more than one part in 10^5 (one cl/ton) and geopotential anomaly to no more than the nearest dynamic centimeter.

It should be noted also that computations of salinity (from measured chlorinity) and density (sigma-t, specific volume anomaly and thermosteric anomaly) reported in this volume have all been based on the empirical equations and tables by Knudsen (1901) and Ekman (1908). Because of the inadequacy of our present knowledge of the equation of state of sea water (Eckart, 1958) and the uncertainty of the relationship between chlorinity and salinity (Carritt and Carpenter, 1959), it is possible that these computed values differ systematically from the absolute values. However, in the upper thousand meters at least, Reid (1959) has shown that the influence of such systematic errors on the accuracy of computed geostrophic flow is significantly smaller than the influence of errors in the determination of temperature, salinity, pressure and position.

NOTES ON PARTICULAR CRUISES

California Cooperative Oceanic Fisheries Investigations

The salinity samples collected on some CCOFI cruises were titrated manually (5401, RV Stranger; 5404, all vessels; 5407, RV Paolina-T; 5411, RV Crest). On other cruises the salinity measurements were obtained by an automatic device which determined the end point by measuring the electrical potential (5409, RV Paolina-T; 5410, all vessels; 5411, RV Spencer F. Baird; 5412, all vessels). On the remaining cruises some samples were titrated manually and some automatically. The random errors in the manual method are estimated to be about 0.025‰ (root mean square); those of the automatic device, about 0.050‰.

Salinity samples from Cruises 5401 through 5405 were not titrated immediately; in some cases titrations were delayed from four to seven months. The sample bottles were carefully sealed and were stored as securely as possible. Comparisons with other data indicate that if evaporation occurred at all, it was very slight (less than the nominal titration accuracy of ± 0.025‰).

Expedition Cusp

The Cusp Expedition was devoted primarily to a geophysical and geological study of the sea floor in the region north and south of the Mendocino Fracture Zone.

Expedition Acapulco Trench

The primary purpose of the Acapulco Trench Expedition was geophysical and geological exploration of the sea floor off Central America.

Cruises HMS-25, HMS-26 and CHG-17

The data collected by RV Hugh M. Smith and RV Charles H. Gilbert on these three cruises have been corrected for an error in depth calculation reported by Thomas S. Austin (1962). (This error had been made in the calculation of all data of the RV Hugh M. Smith and RV Charles H. Gilbert reported in Special Scientific Reports, U. S. Fish and Wildlife Service, Fisheries Nos. 168, 180, 201, 217, 238, 252, 315, 358 and part of 164.) The recalculations of the data of the 1954 cruises were made through the facilities of the IGY World Data Center A, Oceanographic Archive, Agricultural and Mechanical College of Texas. Interpolation for values at standard depths was performed by a machine program that fitted a parabola to the four observed values surrounding the desired standard depth (two above and two below), to pass through the two inner observed values and to be a least-squares fit to the two outer observed values. Re-editing by the Bureau of Commercial Fisheries, Honolulu, of these machine calculations was done by comparing them with characteristic curves and then making adjustments for any peculiarities introduced by the machine interpolations where points were widely scattered.

USCGSS Pathfinder and USCGSS Explorer

The interpolation for values at standard depths and determination of calculated depths were carried out by machine programs at the U. S. Naval Oceanographic Office, Washington, D. C. Interpolations were made by the three-point Lagrange method (U. S. N. Hydrogr. Off., 1960; Nat. Oceanogr. Data Center, 1962).

Cruises BB-56, BB-62, BB-64 and BB-67

Interpolation of values at standard depths was performed by the IBM Type 650 Magnetic-Drum Data-Processing Machine in the Research Computer Laboratory of the University of Washington, using the three-point Lagrange curve based upon one point above and two points below the desired depth. Corrections were made for any peculiar interpolations which resulted from use of this method in the upper layers.

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations 0-500 m	500-1000 m	1000-2000 m	>2000 m	Total	T and S obs at 10 m	No. of BT obs
CCOFI									
5401	Crest[a]	7-20 i	11	9	12	0	32	0	309
	Horizon	6-22 i	11	15	12	0	38	39	328
	N. B. Scofield	6 i-4 ii	0	25	0	0	25	0	143
5402	Crest	3-14 ii	7	13	3	1	24	27	192[c]
	Horizon	5-16 ii	10	8	5	1	24	42	285
5403	Crest	6-12 iii	7	11	2	0	20	18	139[c]
	Horizon	4-19 iii	14	12	10	0	36	78	286[c]
	N. B. Scofield	13 iii-5 iv	2	8	7	0	17	0	86
5404	Crest	9-17 iv	8	7	4	0	19	47	239[c]
	E. W. Scripps	10-20 iv	5	11	2	0	18	34	54
	Horizon	7-30 iv	15	11	5	0	31	49	190[c]
	Spencer F. Baird	18 iv-10 v	0	1	16	0	17	0	153
5405	Crest	9-24 v	13	17	6	0	36	49	306[c]
	Horizon	6-21 v	12	16	10	0	38	83	323
5406	Crest	5-23 vi	15	14	11	1	41	86	327[c]
	Horizon	4-21 vi	8	20	11	0	39	47	315[c]
5407	Crest	10-21 vii	16	8	4	0	28	36	202[c]
	Horizon	8-18 vii	12	5	8	0	25	30	102[c]
	Paolina-T	23 vii	1	0	0	0	1	0	167[d]
5408	Crest	13 viii-1 ix	17	6	9	0	32	32	300[c]
	Spencer F. Baird	27 viii-10 ix	7	16	8	0	31	35	120[c]

O_2	PO_4-P	Depth determination: Usual No. Nansen btls	Depth determination: No. P therms/btl	Depth determination: Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
0	0	16	2	10	thermograph	59[b]	-	Phyto. samples, Sebastián Vizcaino Bay; marine mammal and albatross logs
0	0	16	2	10	thermograph	77[b]	191 GEK	Marine mammal and albatross logs
25	0	16	2	10	thermograph	25[b]	112 GEK	-
0	0	16	2	10	thermograph	51[b]	23 GEK	Phyto. samples collected along Line 85; marine mammal and on-sta albatross logs
0	0	16	2	10	thermograph	66[b]	118 GEK	Two casts, to 300 m and 1500 m, for manganese, titanium and iron determinations; phyto. samples at 13 stas; marine mammal and albatross logs
0	0	16	2	10	thermograph	38[b]	-	Marine mammal and on-sta albatross logs
0	0	16	2	10	thermograph	116[b]	67 GEK	Marine mammal and on-sta albatross logs
17	0	16	2	10	thermograph	17[b]	-	Long-line fishing; 2 series of BT obs to study T convergence; marine mammal and albatross logs
0	0	16	1-2	8	thermograph	66[b]	36 GEK	Series of 900-ft BT lowerings at T convergence; marine mammal and on-sta albatross logs
0	0	16	1-2	8	thermograph	52[b]	-	Marine mammal and on-sta albatross logs
0	0	16	1-2	8	thermograph	80[b]	-	Marine mammal and on-sta albatross logs
0	0	16	2	10	thermograph	0	139 GEK	-
0	0	16	2	10	thermograph	85[b]	61 GEK	Marine mammal and daytime on-sta albatross logs
0	0	16	2	10	thermograph	121[b]	-	Marine mammal and on-sta albatross logs
0	0	16	2	10	thermograph	125[b]	-	Marine mammal and on-sta albatross logs
0	0	16	2	10	thermograph	87[b]	-	Marine mammal and on-sta albatross logs
0	0	16	1-2 above 300 m; 2 below 300 m	9	thermograph	64[b]	-	Jig-line fishing; marine mammal and on-sta albatross logs
0	0	16	1-2	9	thermograph	57[b]	-	Marine mammal and on-sta albatross logs
0	0	15	1-2 above 100 m; 2 below 100 m	7	thermograph	0	-	Japanese-style long-line fishing and trolling for tuna and other pelagic fish off west coast of Baja Calif.; marine mammal and albatross logs
0	0	16	2	9	thermograph	57[b]	29 GEK	Jig-line fishing; marine mammal and albatross logs
0	0	16	2	10	thermograph	66[b]	-	Marine mammal and albatross logs

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations 0-500 m	500-1000 m	1000-2000 m	>2000 m	Total	T and S obs at 10 m	No. of BT obs
5409	Paolina-T	24 ix-17 x	1	22	0	0	23	0	214[d]
5410	Crest	6-17 x	8	13	4	0	25	32	170[c]
	Horizon	16-24 x	10	6	7	0	23	28	169[c]
5411	Crest	10-12 xi	15	2	0	0	17	0	122
5412	Crest	2-14 xii	10	11	7	0	28	29	209[c]
	Paolina-T	4-16 xii	15	12	3	0	30	28	130
SIO									
Cusp	Horizon[a]	25 vii-12 viii	0	0	1	10	11	0	258
Acapulco Trench	Spencer F. Baird[b]	13 xi-18 xii	3	0	1	13	17	0	251[c]
HBL									
HMS-25	Hugh M. Smith	16 i-16 iii	0	30	59	0	89	0	318

O_2	PO_4-P	Depth determination: Usual No. Nansen btls	Depth determination: No. P therms/btl	Depth determination: Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
0	0	15	1-2 above 100 m; 2 below 100 m	8	thermograph	0	-	Japanese-style long-line fishing and trolling for tuna and other pelagic fish off west coast of Baja Calif.; marine mammal and albatross logs
0	0	16	1-2 above 150 m; 2 below 150 m	9	thermograph	57[b]	84 GEK	Marine mammal and albatross logs
0	0	16	1-2 above 150 m; 2 below 150 m	9	thermograph	51[b]	65 GEK	Marine mammal and albatross logs
6	0	16	2	9	thermograph	0	60 GEK	Study of Sebastián Vizcaino Bay
0	0	16	2	9	thermograph	59[b]	80 GEK	Secchi disc measurements; marine mammal and albatross logs
0	0	16	2	9	thermograph	58[b]	61 GEK	Marine mammal and albatross logs
9	0	16	2	10	thermograph	0	-	Geophysical and geological exploration of the sea floor in the region north and south of the Mendocino Fracture Zone, including seismic refraction and reflection studies; piston coring and echo sounding
0	0	16	2	8	thermograph	0	-	Cont. bathymetric records by modified EDO echo-sounders; detailed echo-sounding studies, incl. areas around Clipperton Is. and Roca Partida in Revillagigedo Group; with RV Horizon, seismic reflection and refraction profiles; bottom sampling by piston and gravity coring; heat-flow measurements; measurements of earth's magnetic field; shipboard measurements of variation in atmospheric electricity; sampling of organically uncontaminated calcareous ooze for chem. studies; sampling of inorganic solids suspended in sea water far from land; sampling of chlorophyll and particulate iron in a 200-m-deep profile; testing of van Veen grab-sampler at great depths
84	78	13	2	9	thermograph	87[a]	185 GEK[b]	Standard daylight surface trolling; 12 Secchi disc obs; bird and fish-school logs

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations 0-500 m	500-1000 m	1000-2000 m	>2000 m	Total	T and S obs at 10 m	No. of BT obs
HMS-26	Hugh M. Smith	29 v-18 vi	2	13	6	0	21	0	106
CHG-17	Charles H. Gilbert	19 ix-1 xi	1	11	28	0	40	0	252[c]
USCGS									
	USCGSS Pathfinder	11 vi-15 ix	4	1	0	0	5	0	110
	USCGSS Explorer	9 ix	0	0	1	0	1	0	1
USNEL									
Hawaiian Island Area	Spencer F. Baird	4-7 ii	0	0	6	0	6	0	6
Experimental Area	USS Marysville	25 iii-14 ix	0	2	2	0	4	0	3
Point Sur Area	USS Marysville	9 vi-5 x	0	2	2	0	4	0	4
UW									
BB-56	Brown Bear	29 iv-3 v	24	1	3	0	28	0	60
BB-62	Brown Bear	23-24 vi	0	0	4	0	4	0	160
BB-64	Brown Bear	5 viii-3 ix	12	2	39	7	60	0	290
BB-67	Brown Bear	15-17 x	3	1	1	0	5	0	16

INFORMATION (cont.)

O_2	PO_4-P	Depth determination: Usual No. Nansen btls	Depth determination: No. P therms/btl	Depth determination: Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
20	0	13	2	9	thermograph	21[a]	GEK	Nonstandard trolling during daylight runs; bird and fish-school logs; 22 large skipjack tagged
40	32	13	8 w/2 5 w/1	5	thermograph	40[d]	-	2 to 6 lines trolled during all daylight runs (incidental surface, direct surface and experimental deep trolling); long-line fishing; Forel scale water-color measurements; Secchi disc obs; bird, mammal and fish-school logs
0	0	5/cast	2	0	-	0	-	-
1	0	4/cast	1	3	-	0	-	-
0	0	15	2	6	thermograph	0	-	-
0	0	12	2	8	-	0	-	-
0	0	10	2	8	-	0	-	-
24[a]	0	10	2	5[b]	32[c]	0	-	Bathymetry with EDO; 6 sets of transparency samples; collection of suspended material with 34-millipore filters
4[a]	0	18	2	5[b]	146[c]	0	903 GEK; GEK time study[d]	-
59[a]	59[e]	16	2	8[b]	230[c]	60[f] 5[g] 4[h]	216 GEK	19 cores
5[a]	5[e]	10	2	7[b]	11[c]	0	-	20 Phleger cores

General Methods

Unless otherwise indicated, subsurface temperature by paired protected reversing thermometers; salinity by Knudsen method; dissolved oxygen by Winkler method aboard ship; inorganic phosphate analyses by the molybdenum-blue method (Wooster and Rakestraw, 1951).

When available, specific information on accuracy is indicated by footnotes. Absence of such information does not necessarily imply that the nominal accuracies have been achieved.

CCOFI

a CCOFI thermometer calibrations indicate the temperature accuracy to be 0.02°C; tests indicate a salinity accuracy of ±0.025‰ (root mean square) for manual titrations and ±0.050‰ for automatic titrations. See Notes on Particular Cruises.

b Oblique plankton tow to approximately 140 m (200 m of wire out, or less in shallow water) taken with a 30XXX net, 1.0 m in diameter at mouth by approximately 5 m in over-all length with detachable cod end of 56XXX nylon grit gauze.

c BT lowering every half hour en route to first station and on the inshore runs between lines. Hourly lowerings at other times.

d BT lowerings to 900 ft at the time of each hydrographic cast, to 450 ft at midstation net tows and at 2-hour intervals while running between stations. Hourly BT observations were made while running south to the first station.

SIO

a Thermometer calibrations indicate the temperature accuracy to be 0.02°C; field tests indicate a salinity accuracy of ±0.025‰ (root mean square). All salinity titrations were performed manually.

b Thermometer calibrations indicate the temperature accuracy to be 0.02°C; tests indicate a salinity accuracy of ±0.050‰ (root mean square). All salinity measurements were made using an automatic device which determined the end point by measuring the electrical potential.

c Three underway BT profiles (observations at 25- to 30-mile intervals) were completed: from Guadalupe Island to 4°N, 125°W; from 8°N, 127°W to Manzanillo; from Clipperton Atoll to Alijos Rocks, off Baja California. During the latter portion of the third profile two instruments were tightly lashed together and lowered each time as a countercheck.

HBL

a Oblique plankton haul to 200 m taken with a net 1.0 m in diameter at mouth and 0.65 mm in aperture size; duration, 30 minutes.

b Current measurements at 30-mile intervals during the second part of the cruise.

c BT lowerings at all hydrographic stations and at 30-mile intervals between stations except on the run along the islands of the Hawaiian Archipelago between Station 40 and Pearl Harbor where the interval was shortened to 2-1/2 hours or approximately 20 miles.

d Oblique zooplankton hauls to 100 m taken at each hydrographic station with a 30XXX net 1.0 m in diameter at mouth and 0.65 mm in aperture size; duration, 30 minutes.

UW

a Dissolved oxygen by the modified Winkler method described by Thompson and Robinson (1939).

b On deep stations.

c Bucket temperatures in conjunction with BT observations.

d Continuous fixes were made on June 17 to 20 for more than 76 hours, broken by three periods of 20 to 30 minutes to relight or refuel the kerosene lantern on the buoy. The buoy drifted approximately 32 miles. On June 20 to 22 another series of fixes were made for more than 52 hours broken only by one period of 27 minutes to refuel the lantern. The buoy drifted approximately 27 miles.

e Soluble inorganic phosphate by the method of Robinson and Thompson (1948), except that the color intensity was measured with a Beckman Model DU Spectrophotometer (Cary and Beckman, 1941) rather than Nessler tubes. The phosphate data, corrected for salt error, are reported conventionally to the second decimal place although it is realized that the individual determinations may be in error by 5 to 10 per cent.

f Oblique plankton tow from 200 m to the surface taken with a Clarke-Bumpus net 14 cm in mouth diameter, 1.0 m in length, of No. 6 mesh. Duration of haul was approximately 30 minutes.

g Surface plankton tows taken with half-meter and one-meter nets towed behind the ship. The half-meter nets were 50 cm in mouth diameter, 1.5 m in length, of No. 6 mesh size. The one-meter nets were 1.0 m in mouth diameter, 12 ft in length and of No. 6 mesh.

h Vertical hauls from 2000 or 3000 m, using two half-meter nets, 50 cm in mouth diameter, 1.5 m in length, one of No. 6 mesh.

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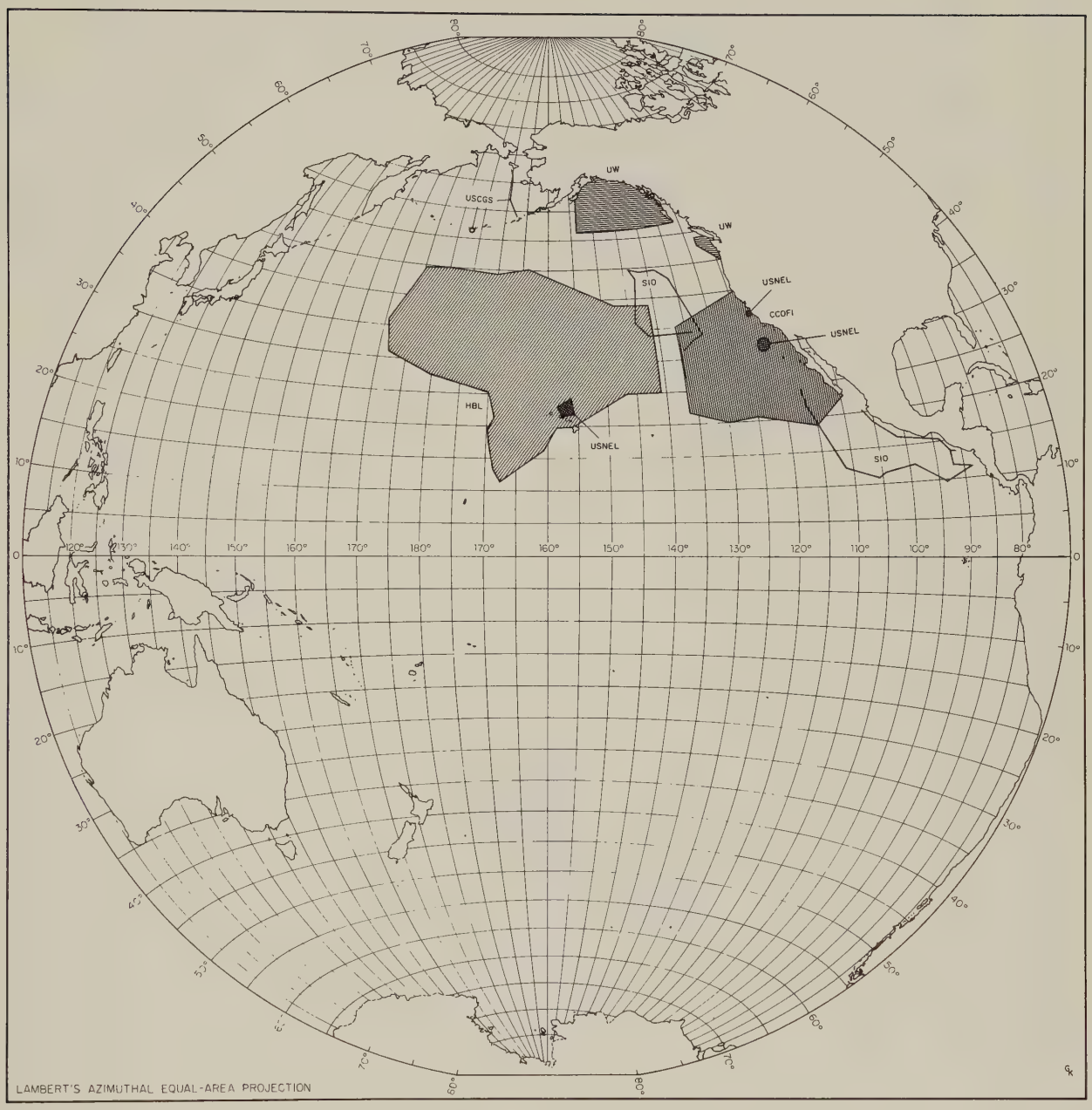

CHART 1. General location chart

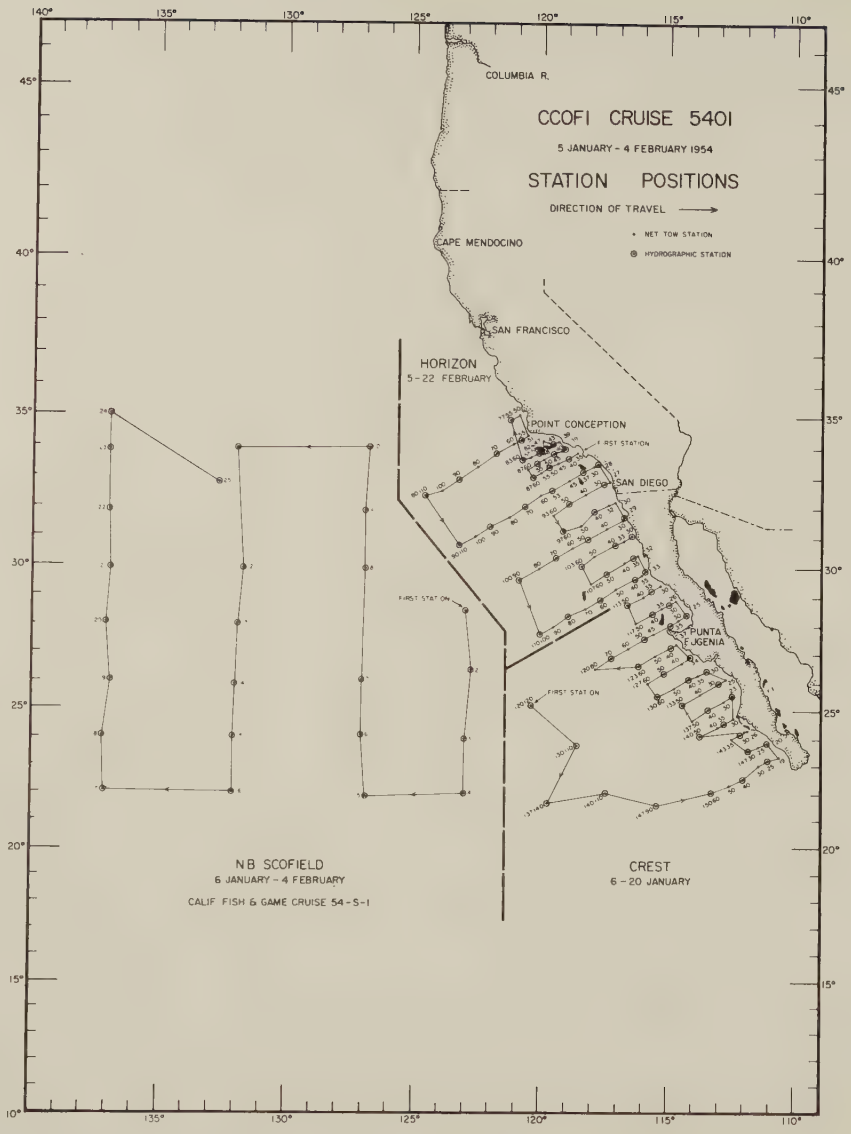

CHART 2. Station positions, CCOFI, Cruise 5401

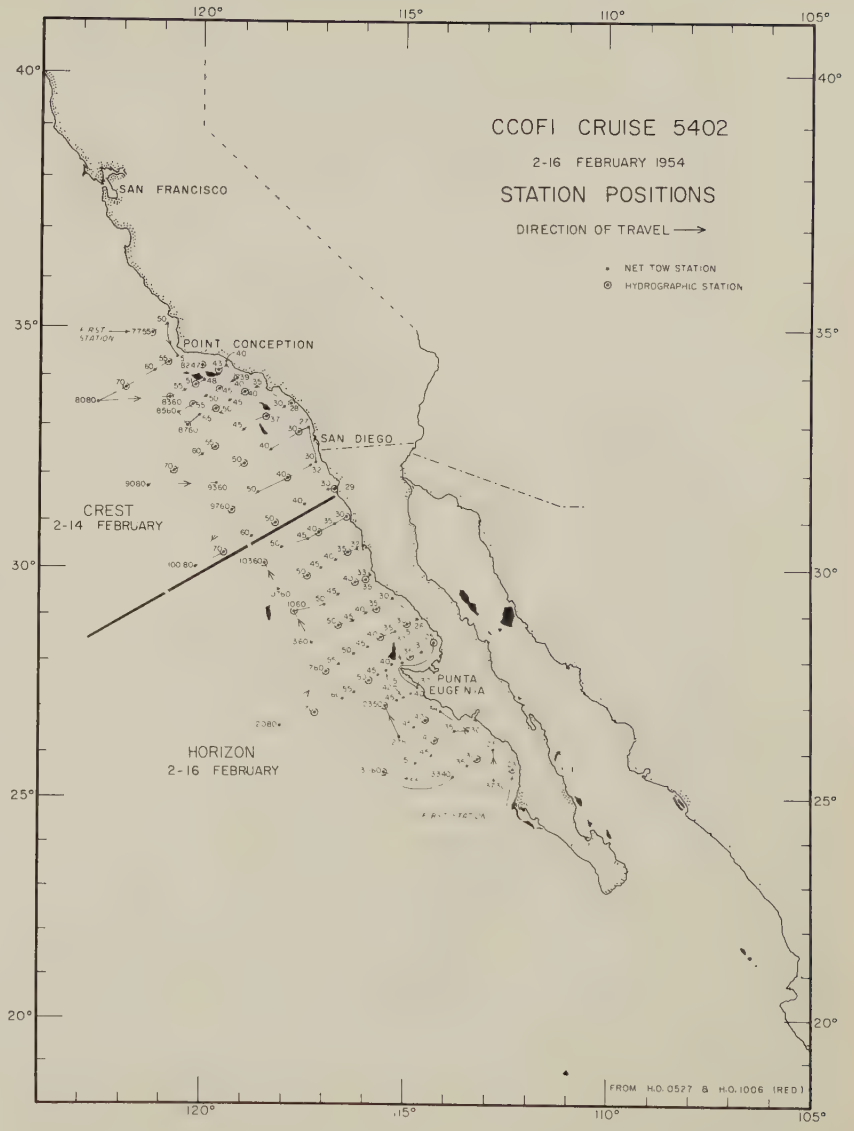

CHART 3. Station positions, CCOFI, Cruise 5402

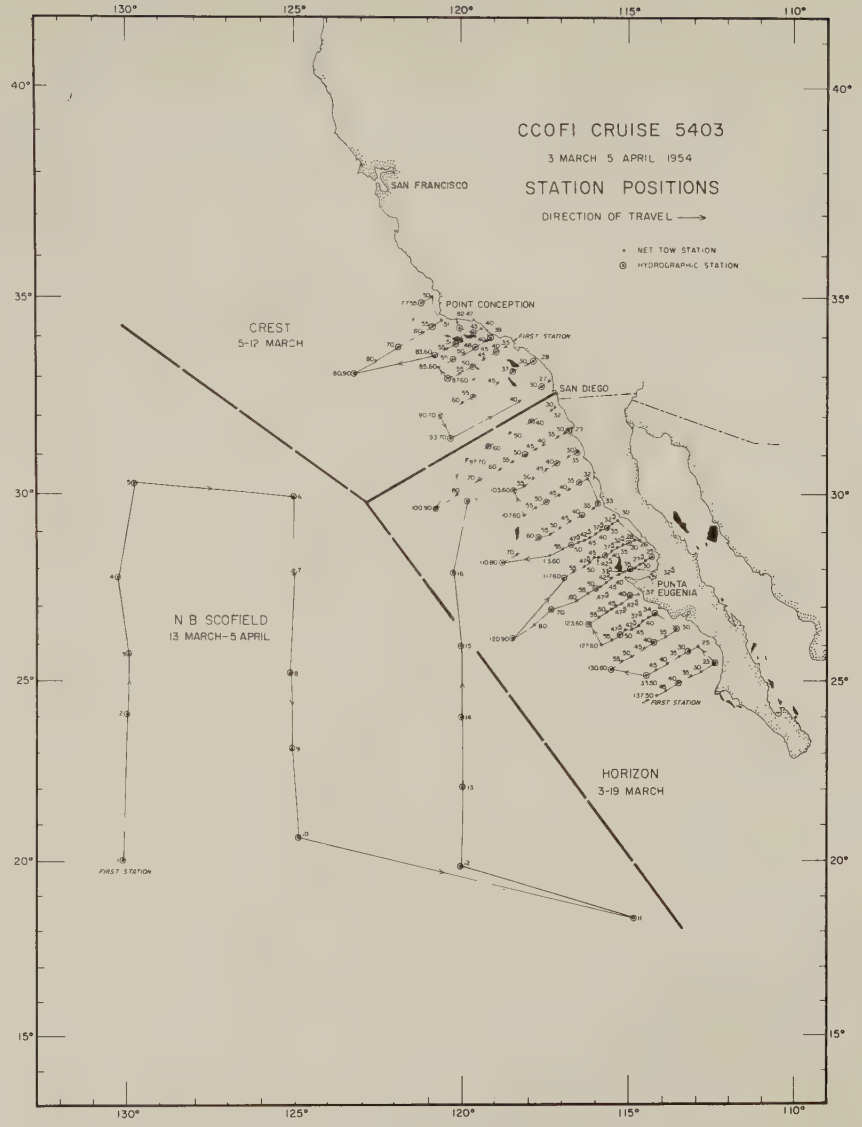

CHART 4. Station positions, CCOFI, Cruise 5403

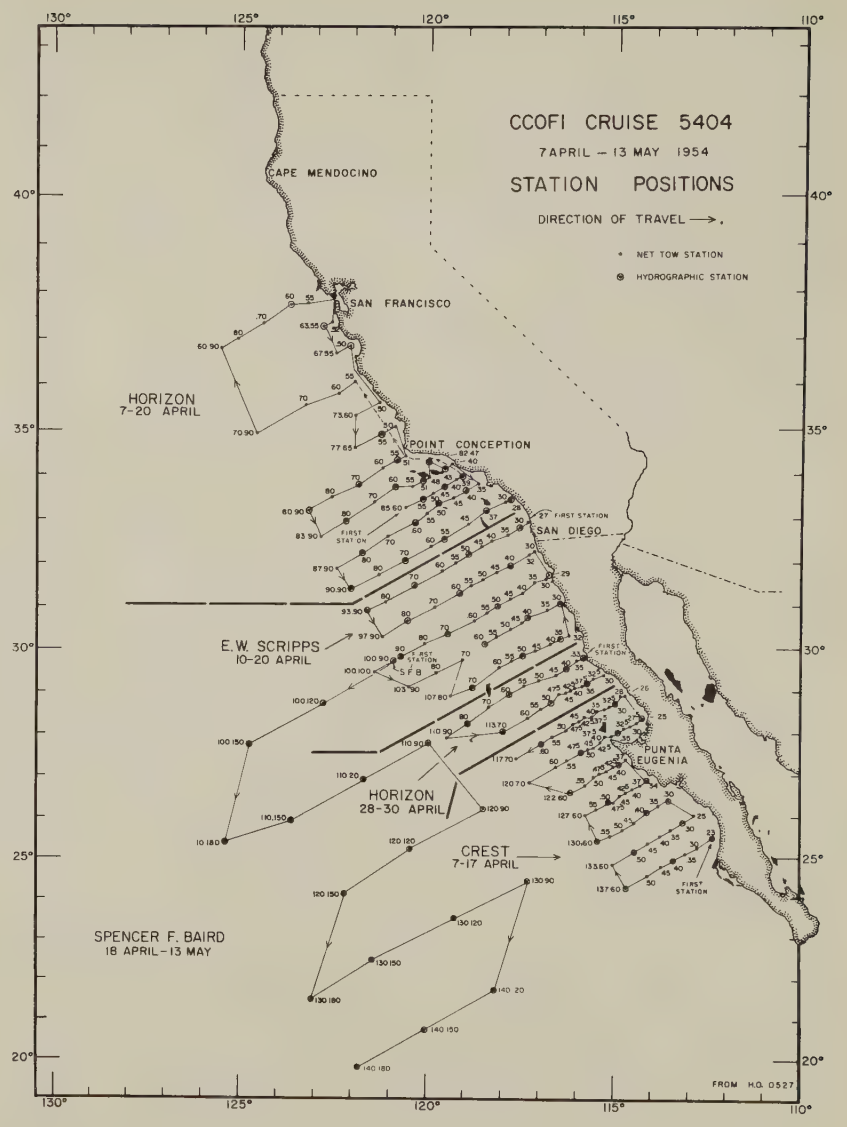

CHART 5. Station positions, CCOFI, Cruise 5404

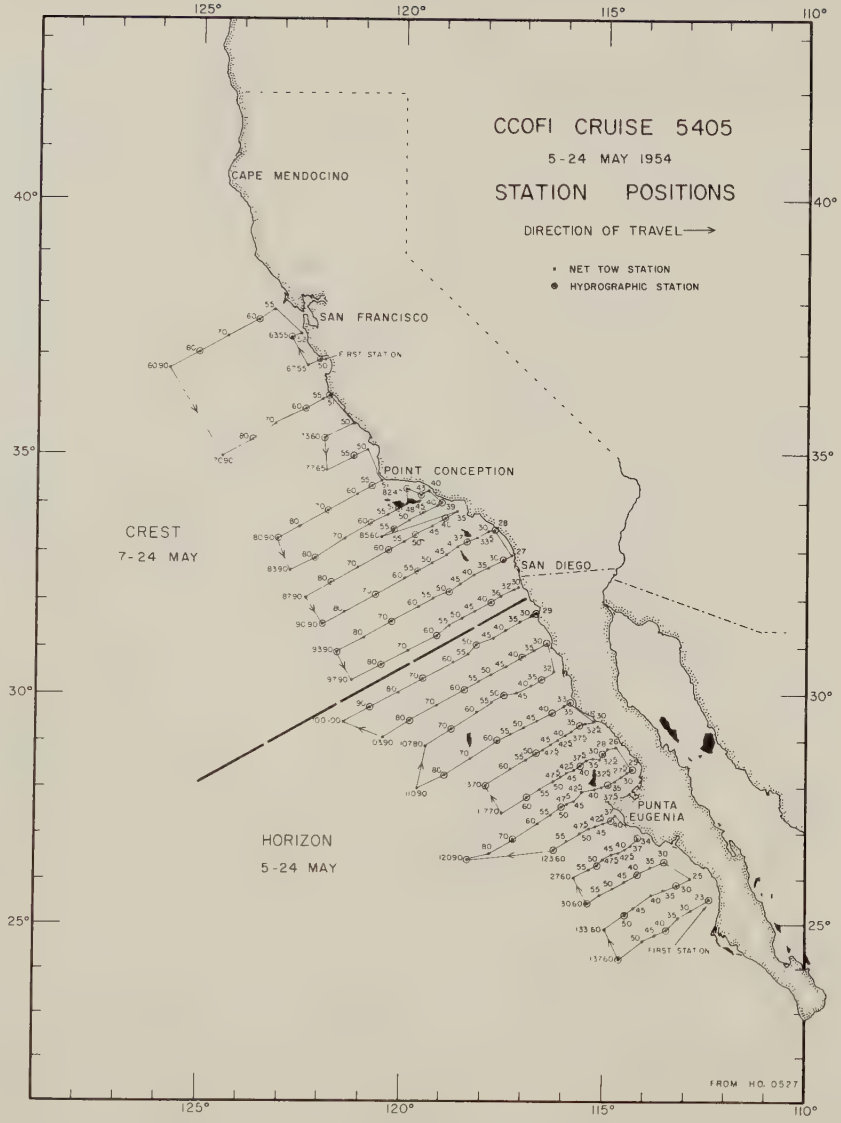

CHART 6. Station positions, CCOFI, Cruise 5405

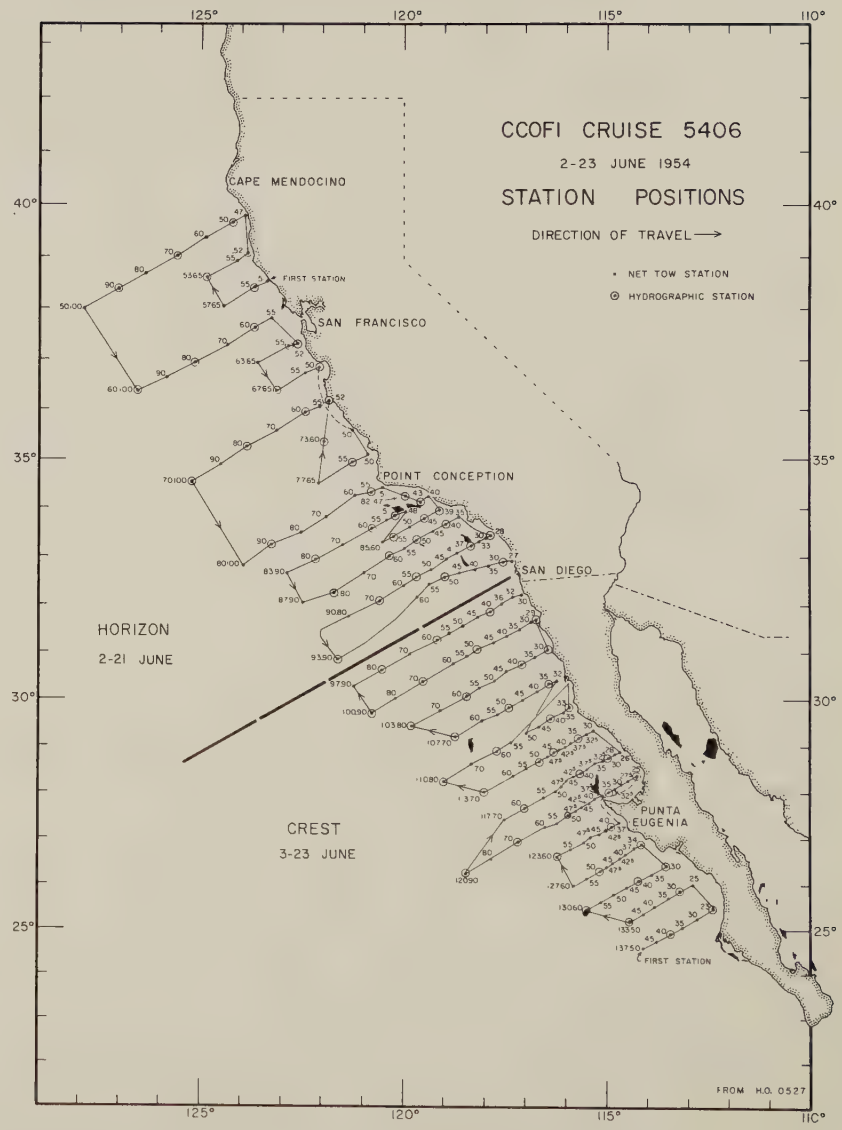

CHART 7. Station positions, CCOFI, Cruise 5406

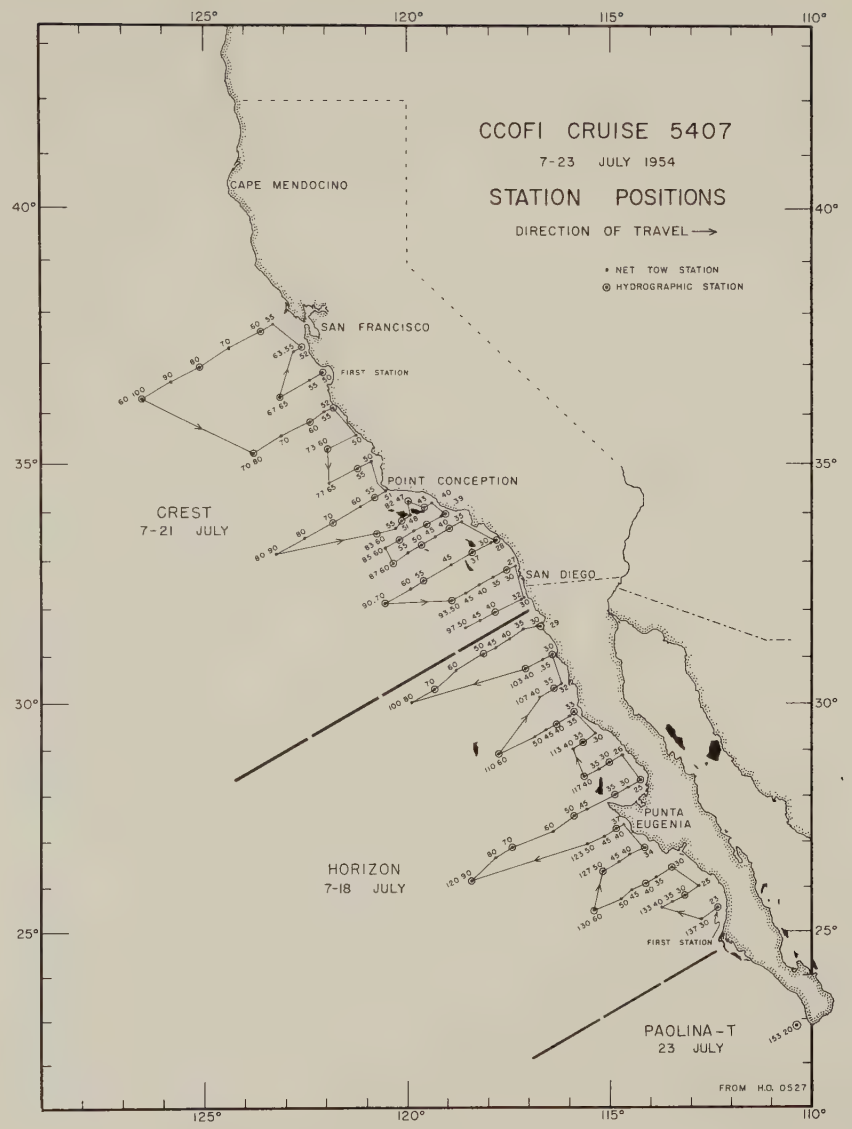

CHART 8. Station positions, CCOFI, Cruise 5407

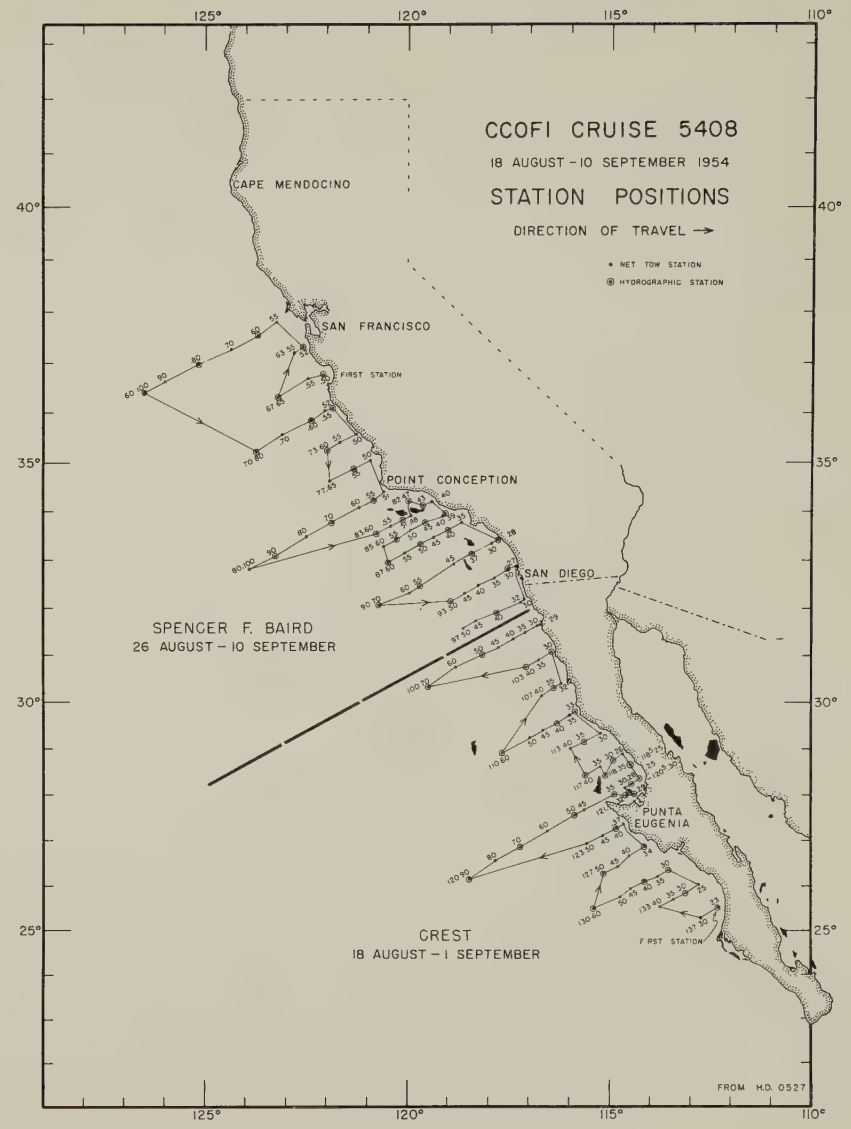

CHART 9. Station positions, CCOFI, Cruise 5408

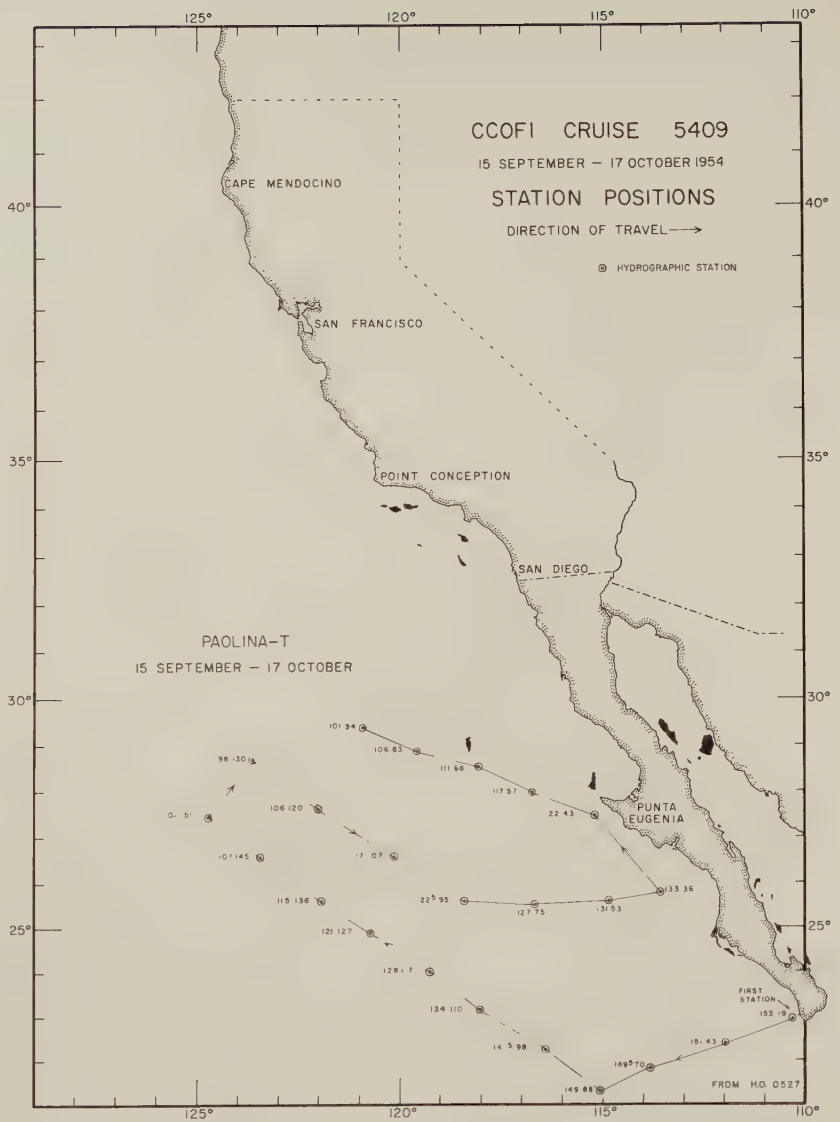

CHART 10. Station positions, CCOFI, Cruise 5409

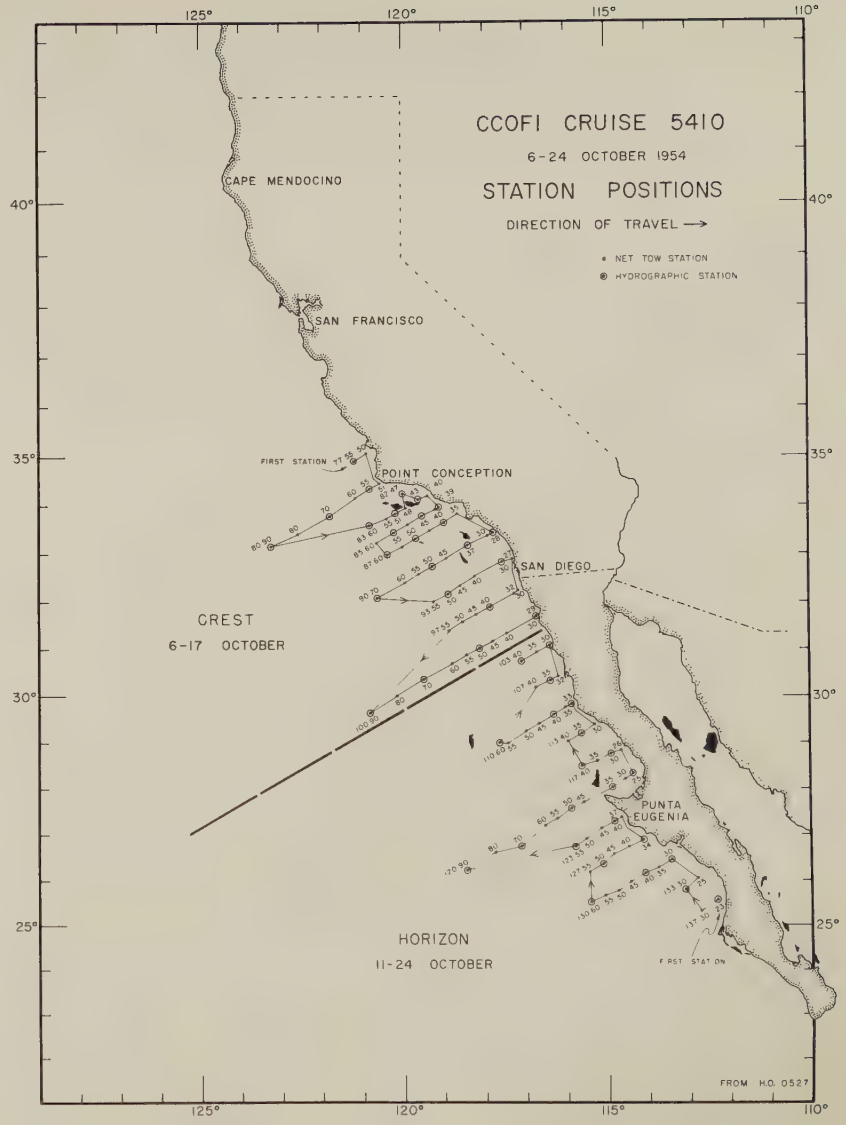

CHART 11. Station positions, CCOFI, Cruise 5410

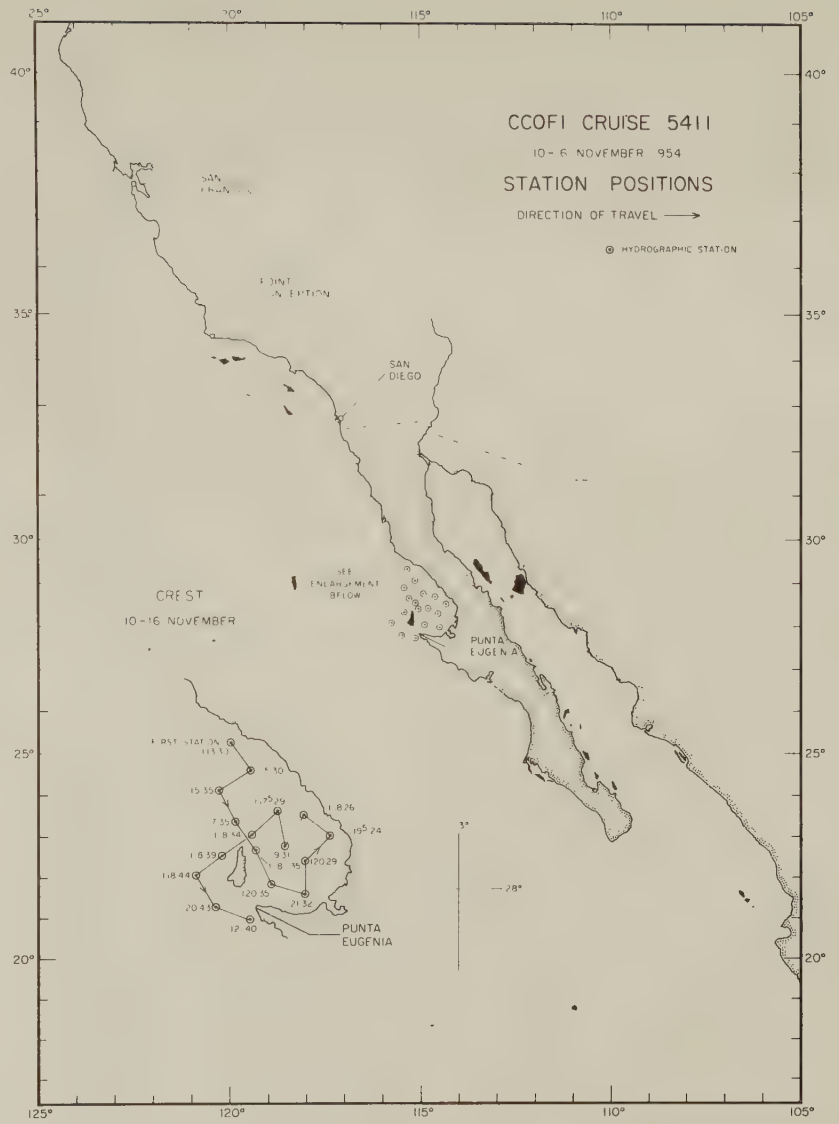

CHART 12. Station positions, CCOFI, Cruise 5411

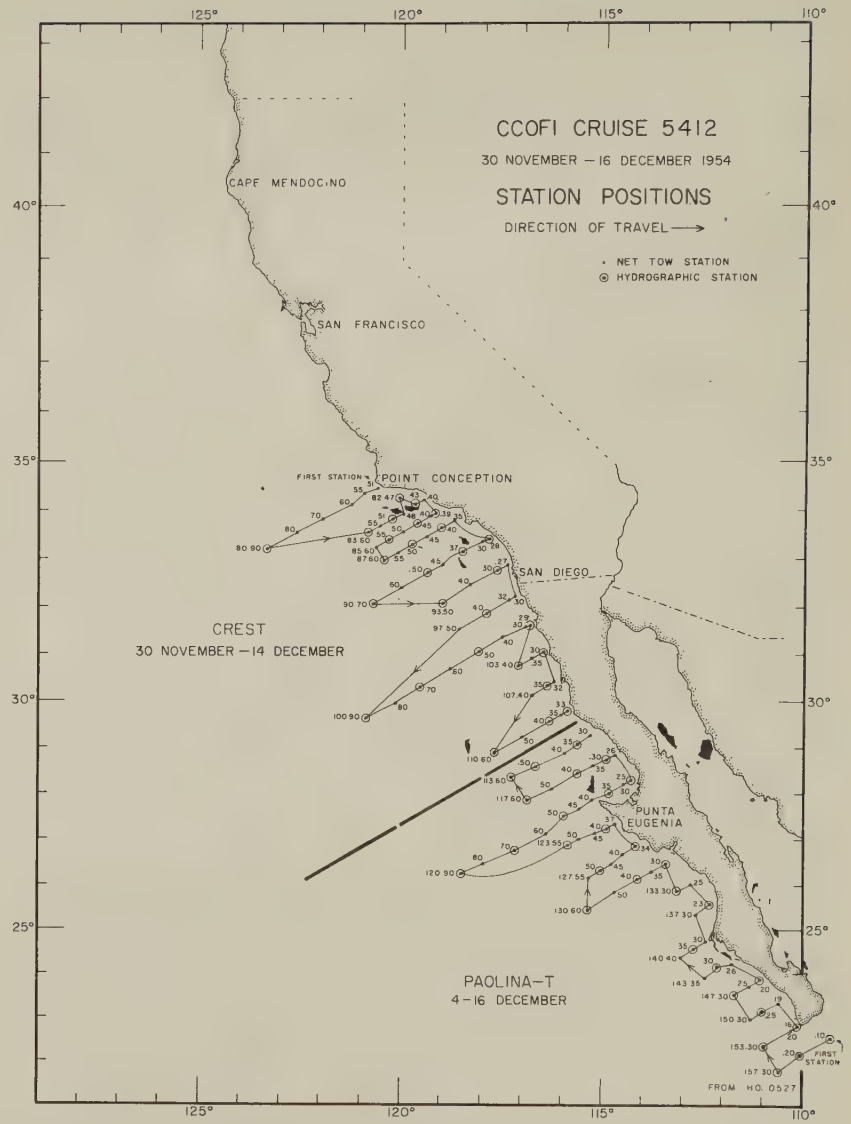

CHART 13. Station positions, CCOFI, Cruise 5412

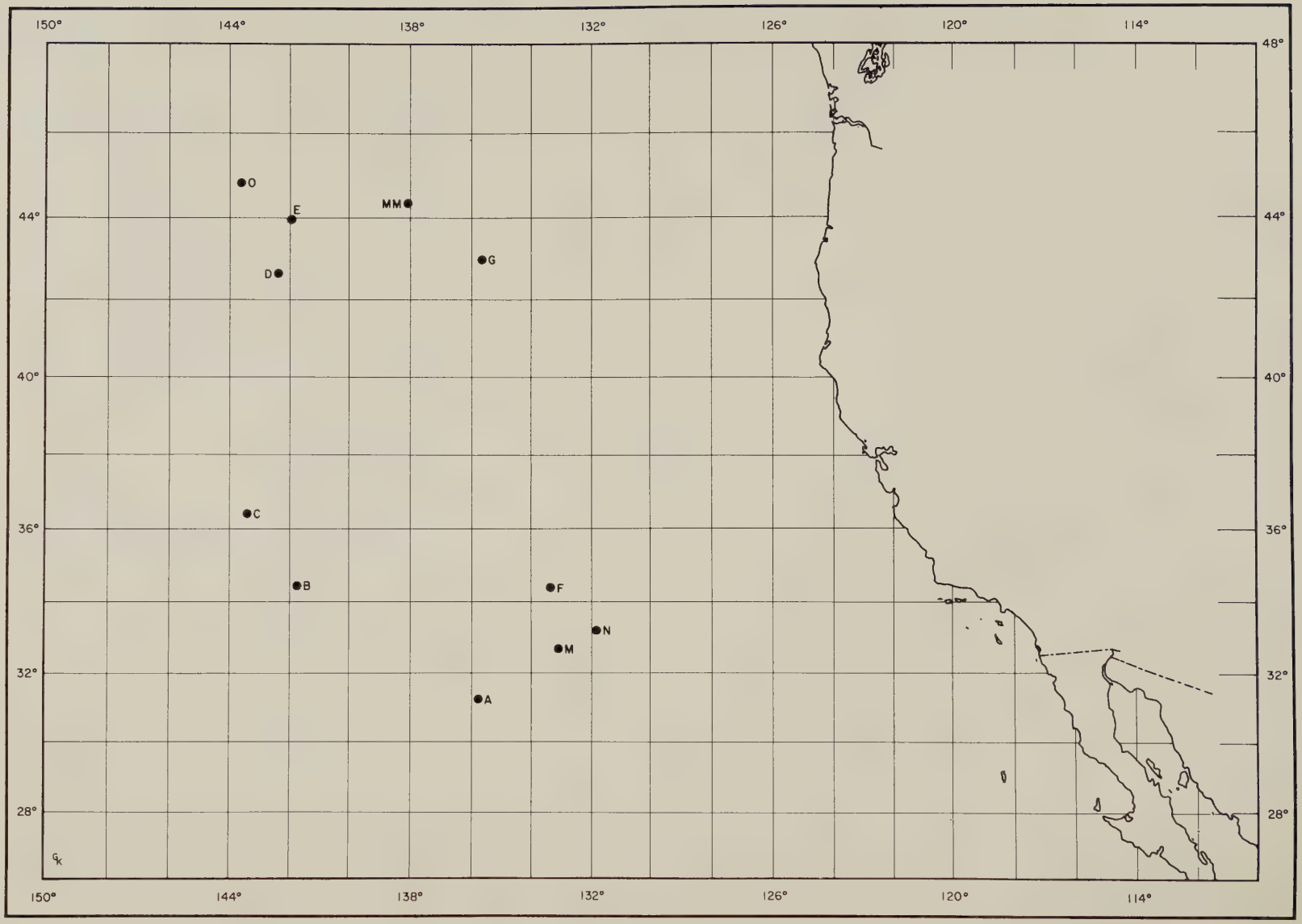

CHART 14. Station positions, Scripps Institution of Oceanography, RV Horizon on Expedition Cusp

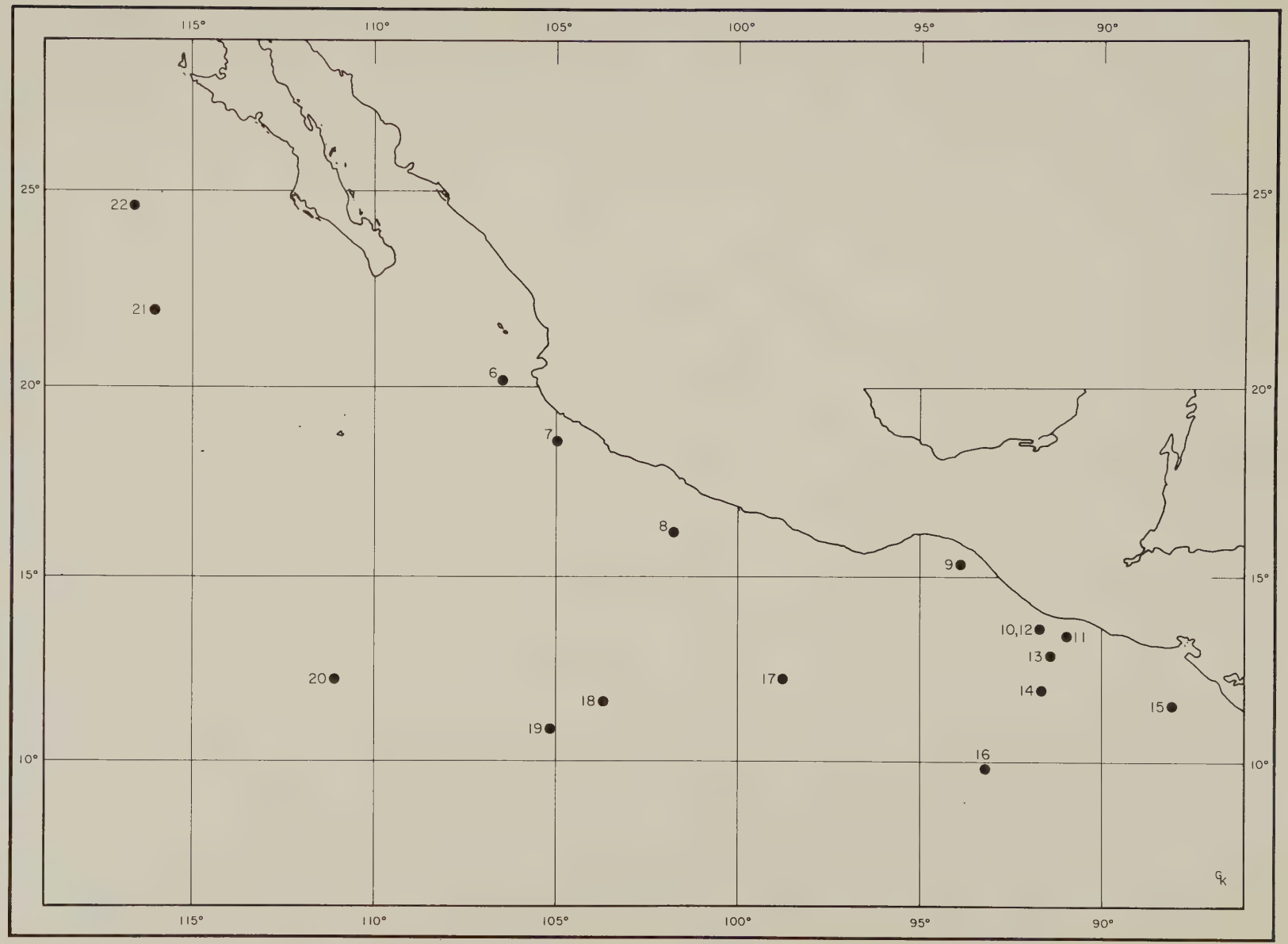

CHART 15. Station positions, Scripps Institution of Oceanography, RV Spencer F. Baird on Expedition Acapulco Trench

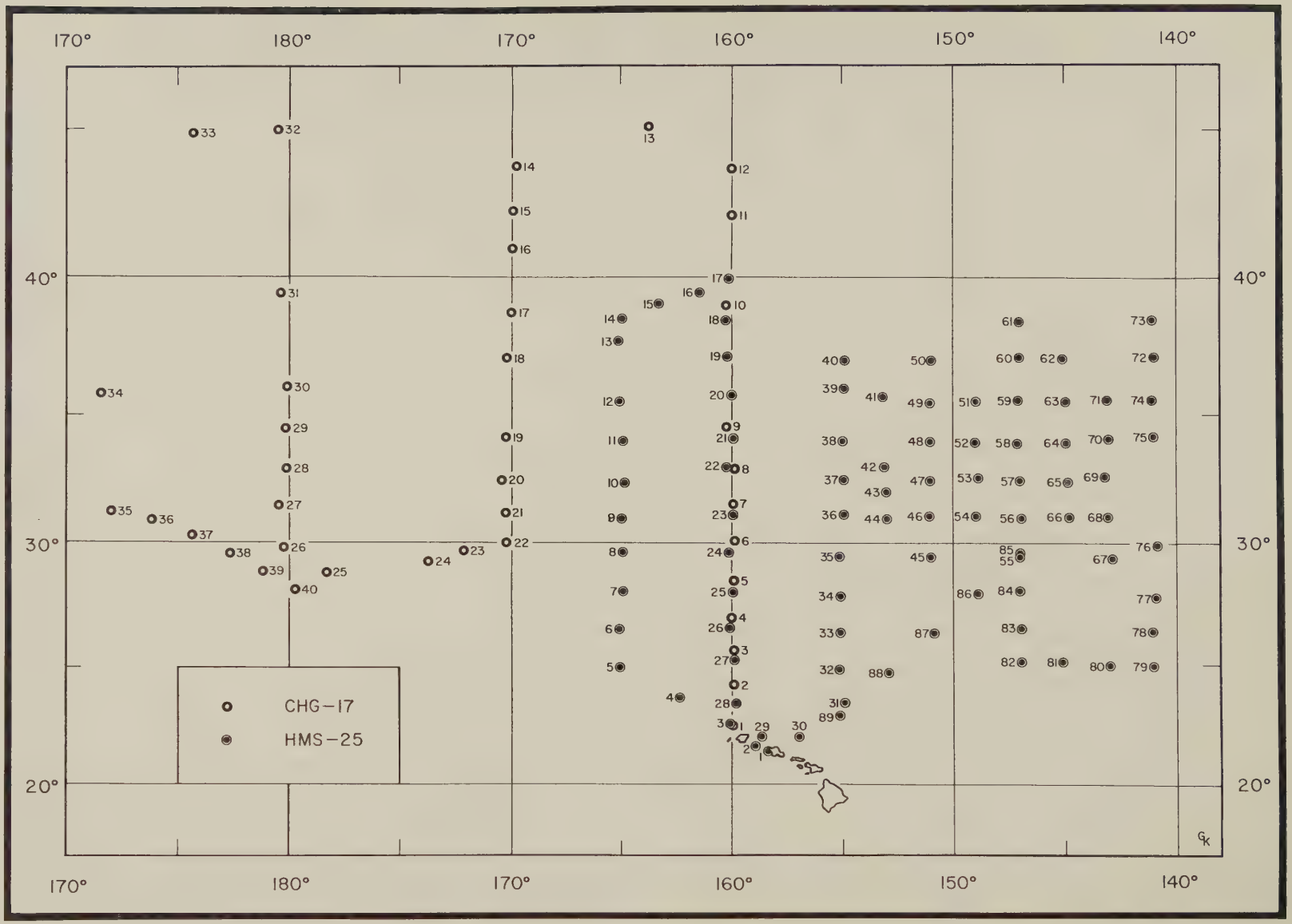

CHART 16. Station positions, Bureau of Commercial Fisheries, Honolulu, Cruise 25 of RV Hugh M. Smith and Cruise 17 of RV Charles H. Gilbert

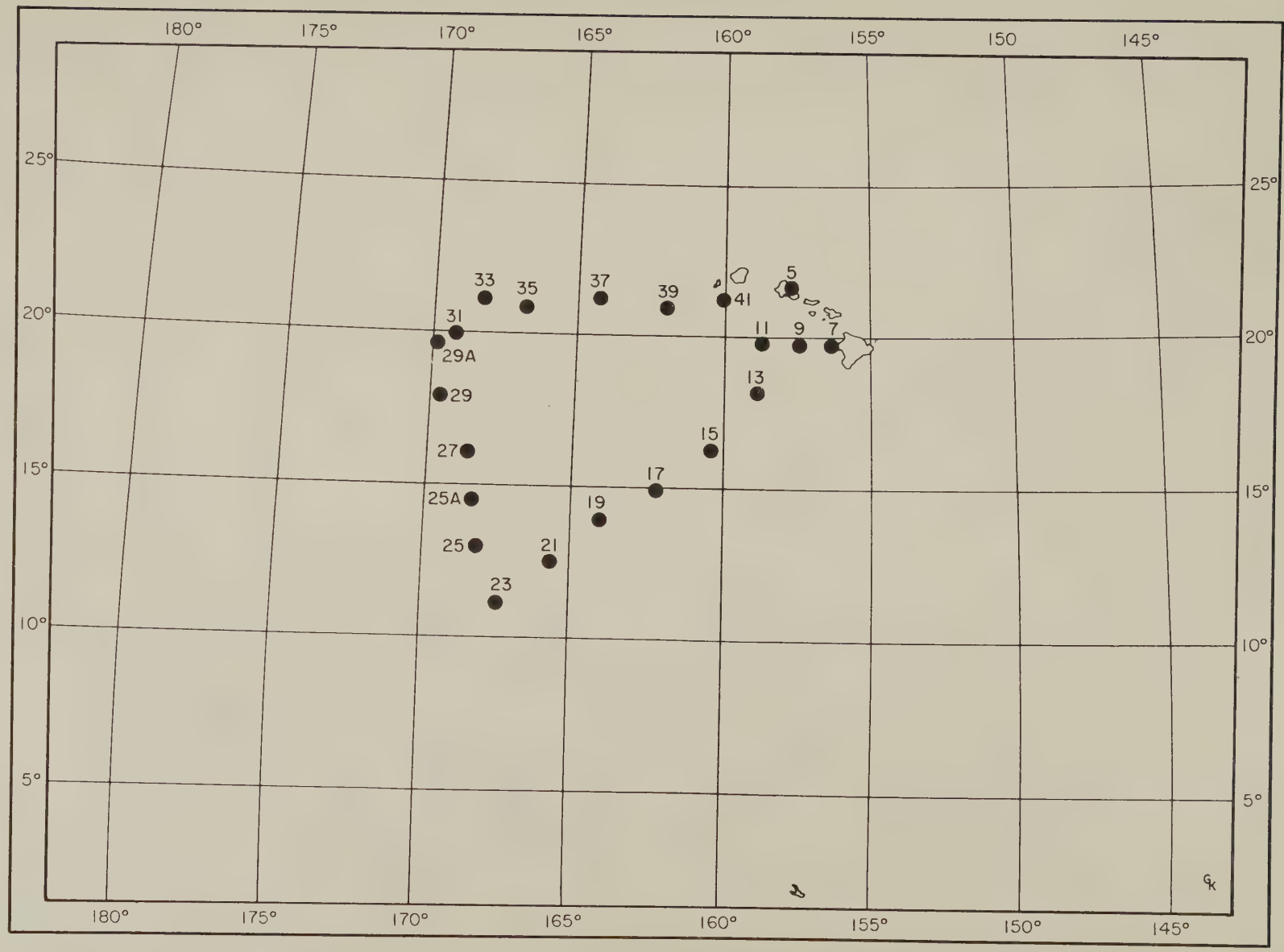

CHART 17. Station positions, Bureau of Commercial Fisheries, Honolulu, Cruise 26 of RV Hugh M. Smith

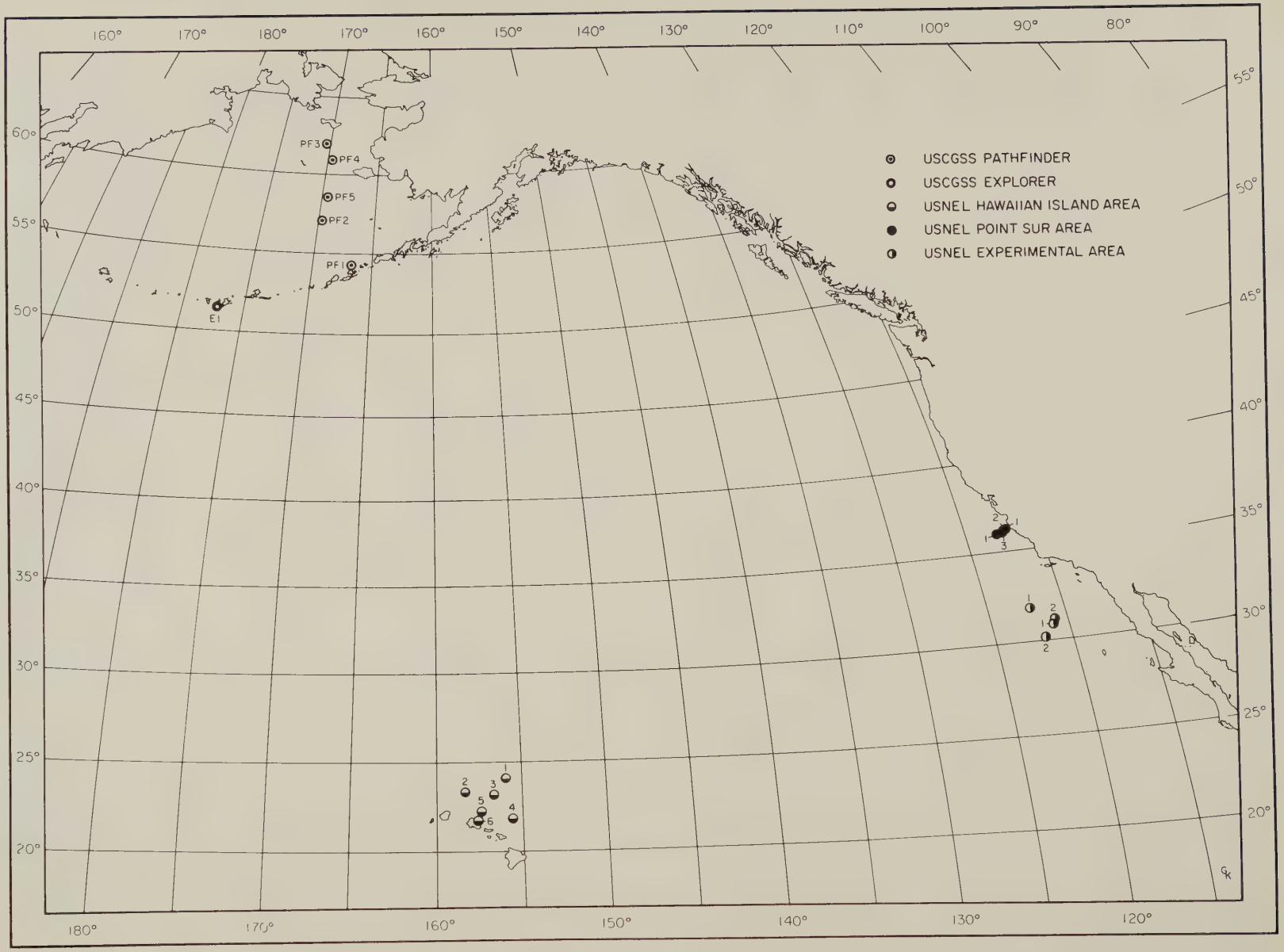

CHART 18. Station positions, U. S. Coast and Geodetic Survey, USCGSS Pathfinder and USCGSS Explorer, and U. S. Navy Electronics Laboratory, RV Spencer F. Baird in Hawaiian Island Area and USS Marysville in Experimental and Point Sur Areas

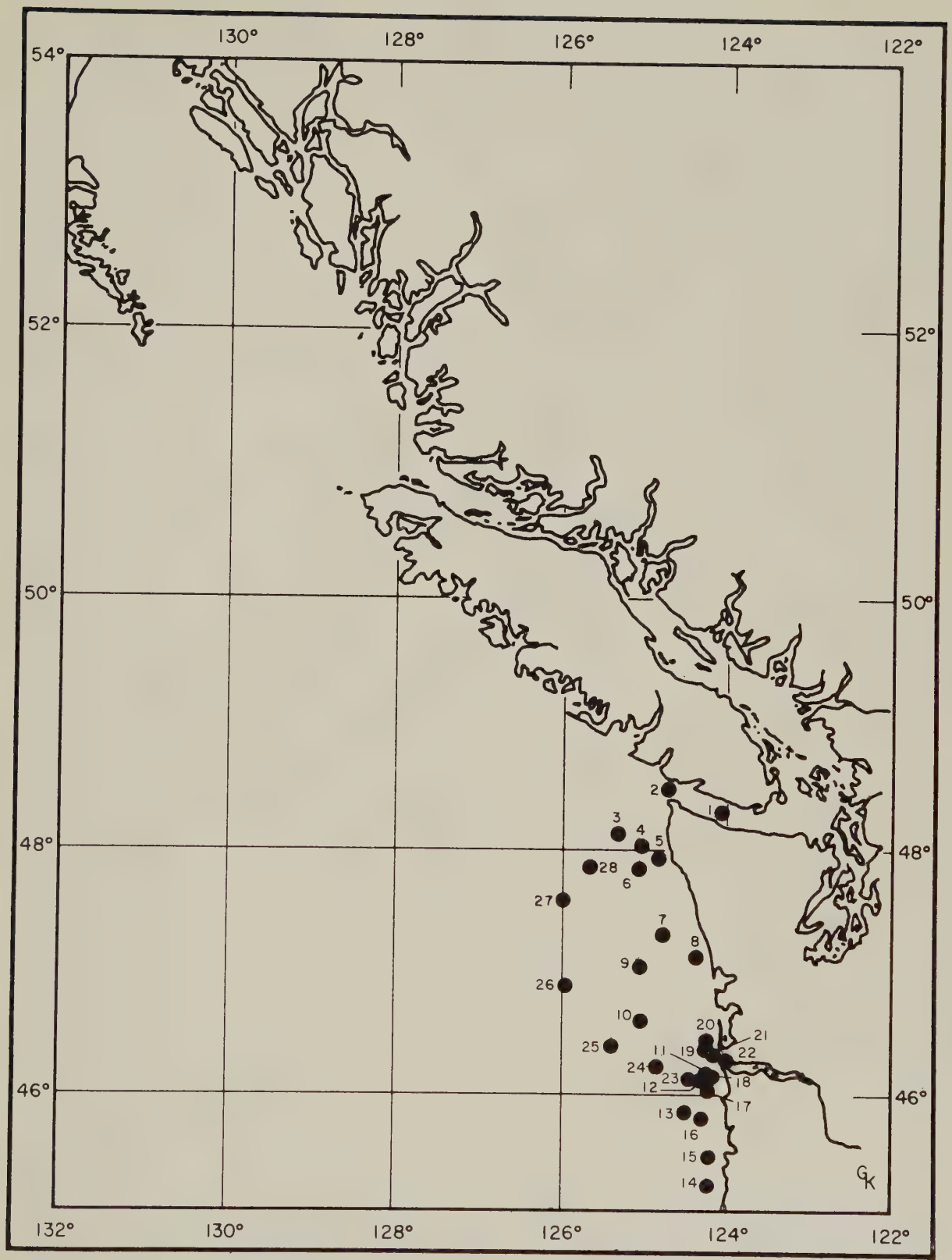

CHART 19. Station positions, University of Washington, Cruise 56 of RV Brown Bear

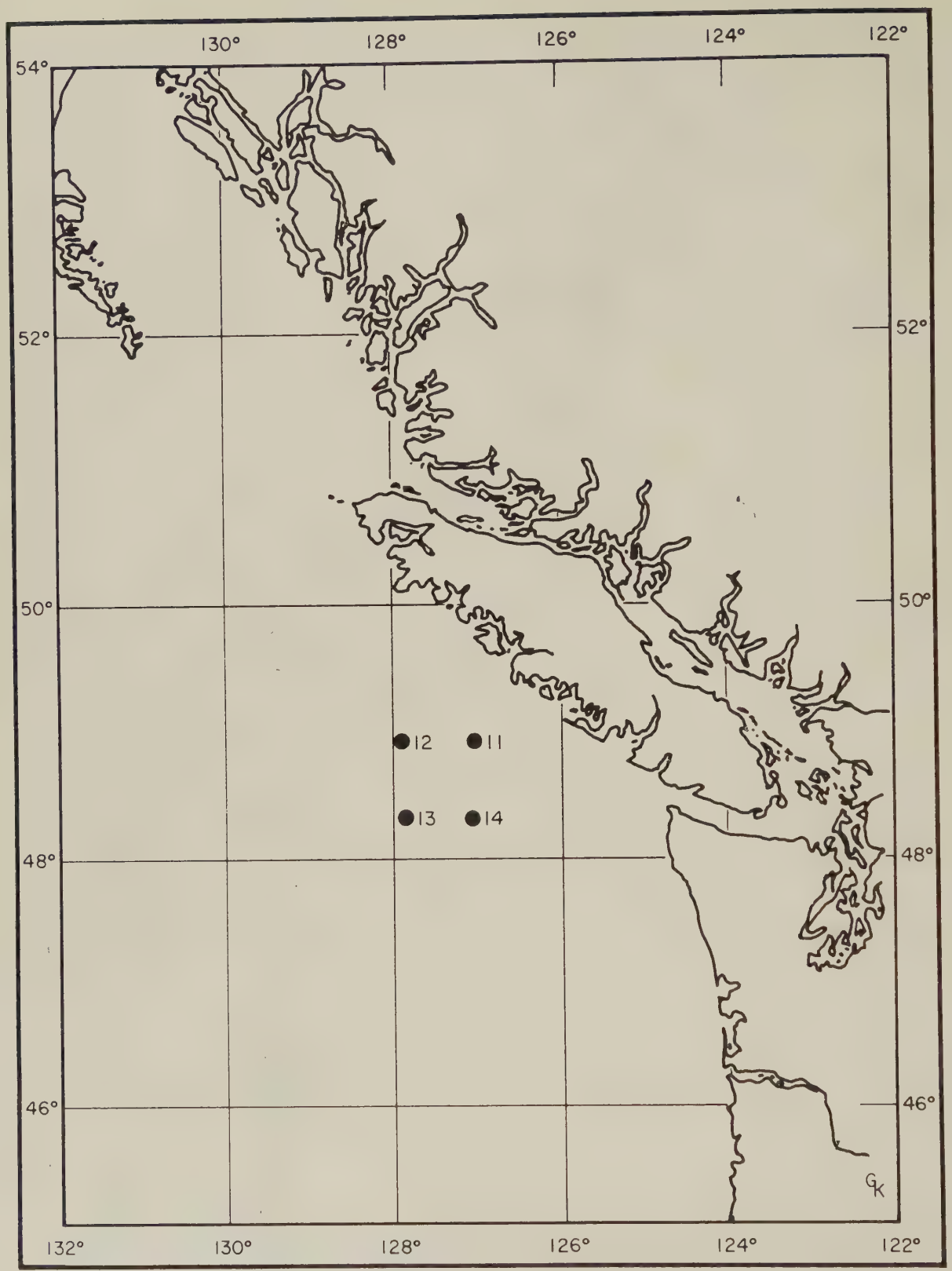

CHART 20. Station positions, University of Washington, Cruise 62 of RV Brown Bear

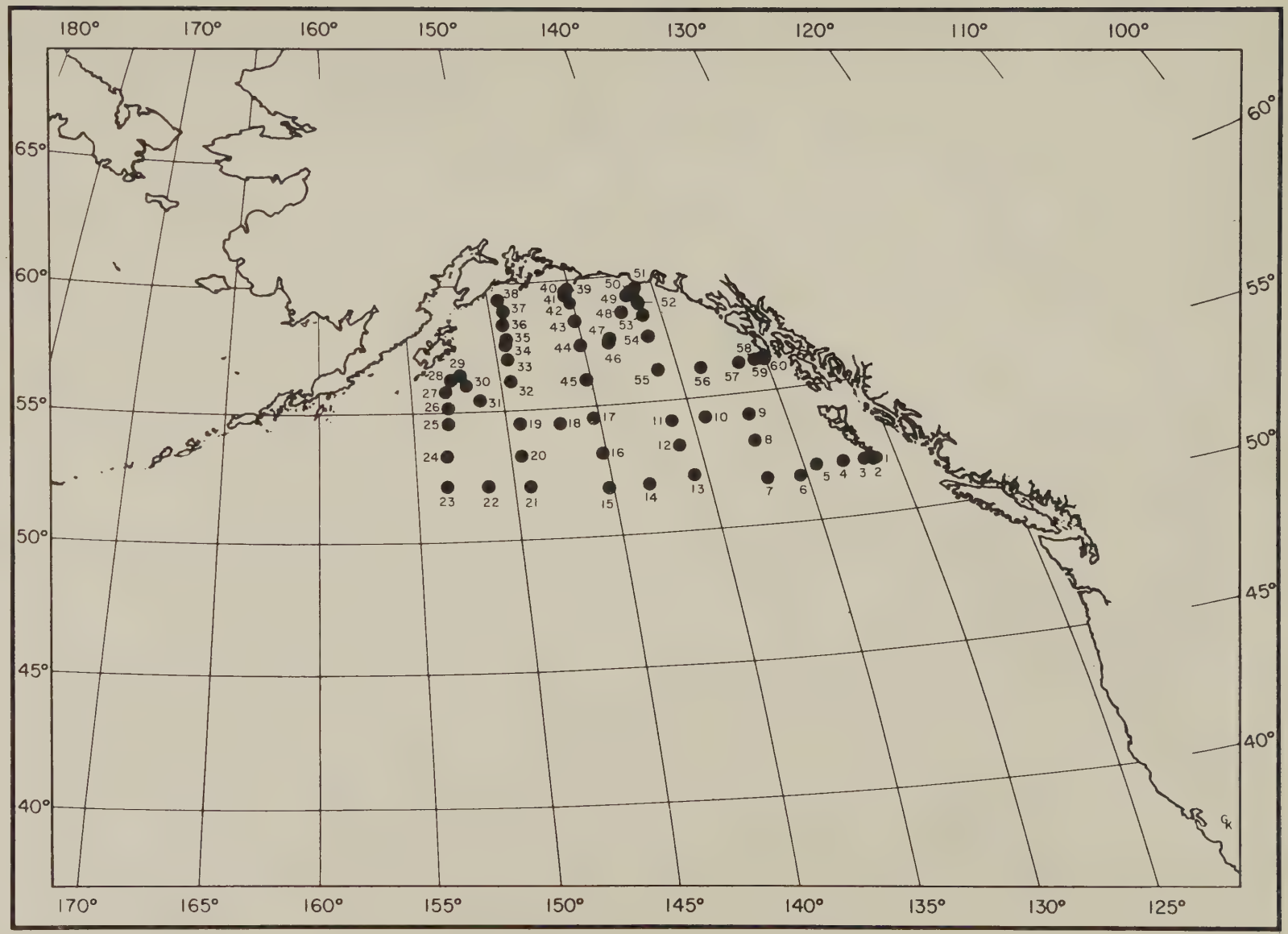

CHART 21. Station positions, University of Washington, Cruise 64 of RV Brown Bear

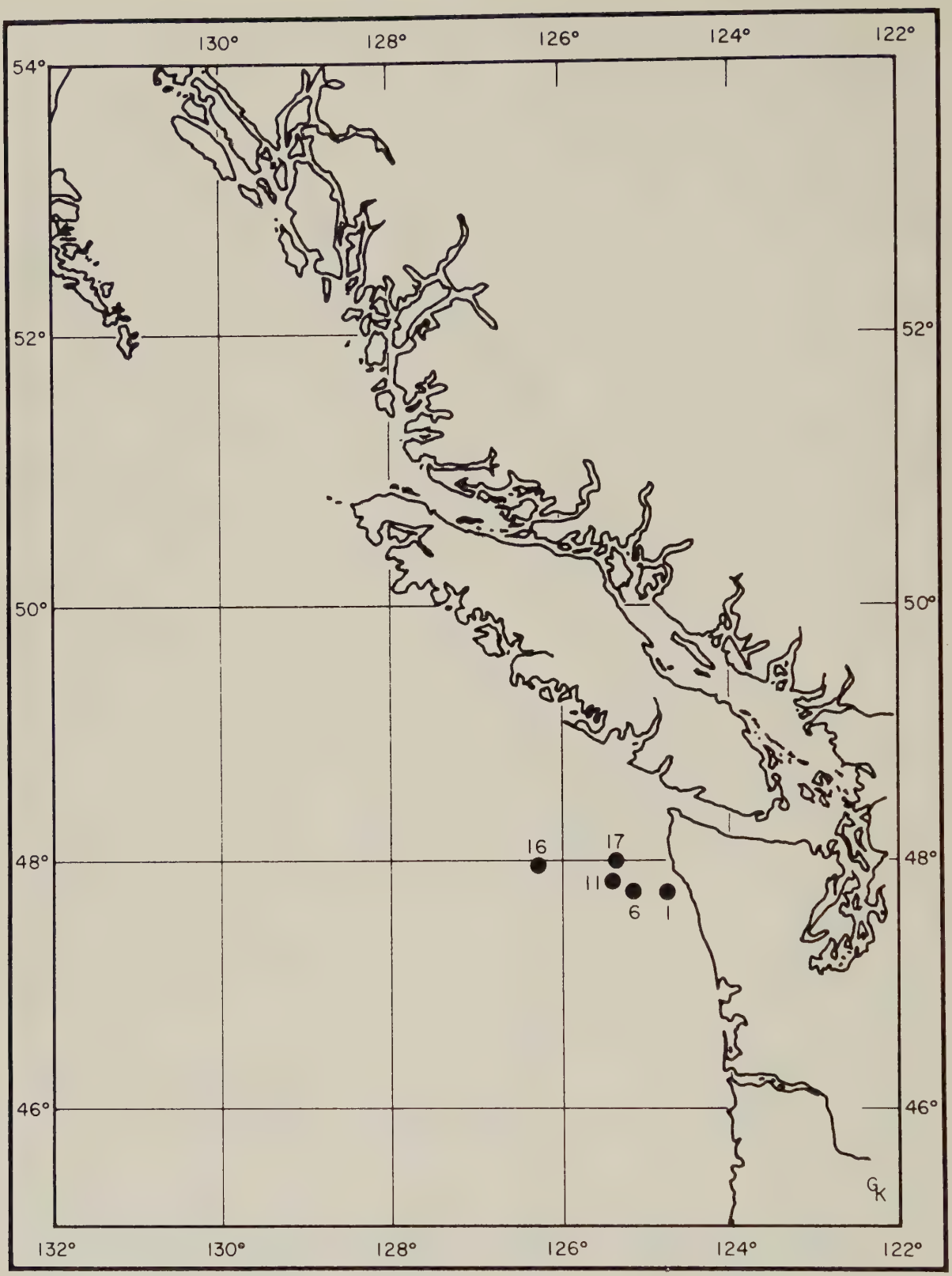

CHART 22. Station positions, University of Washington, Cruise 67 of RV Brown Bear

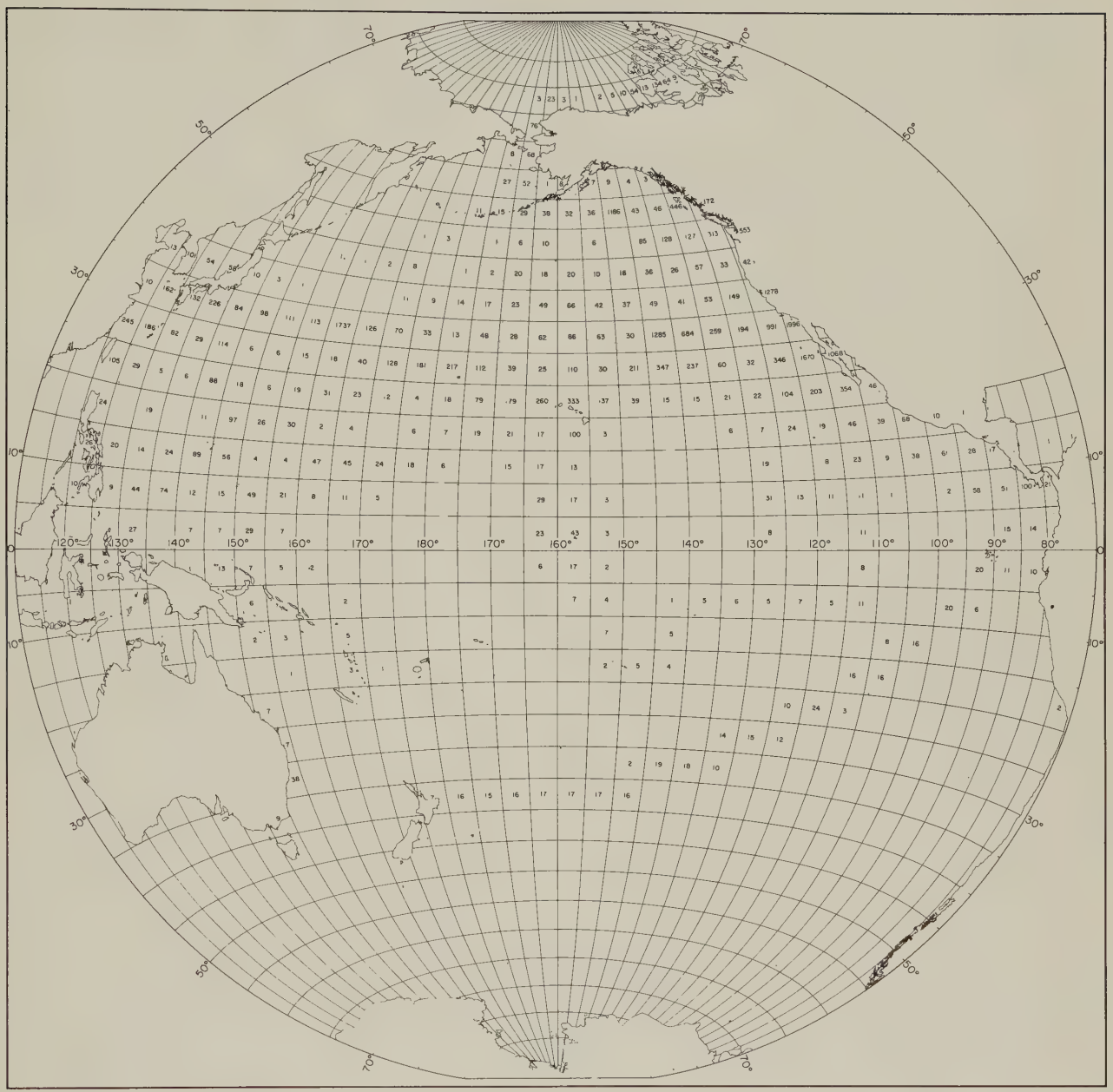

CHART 23. Bathythermograph observations, North and South Pacific, 1954; total, 25,354

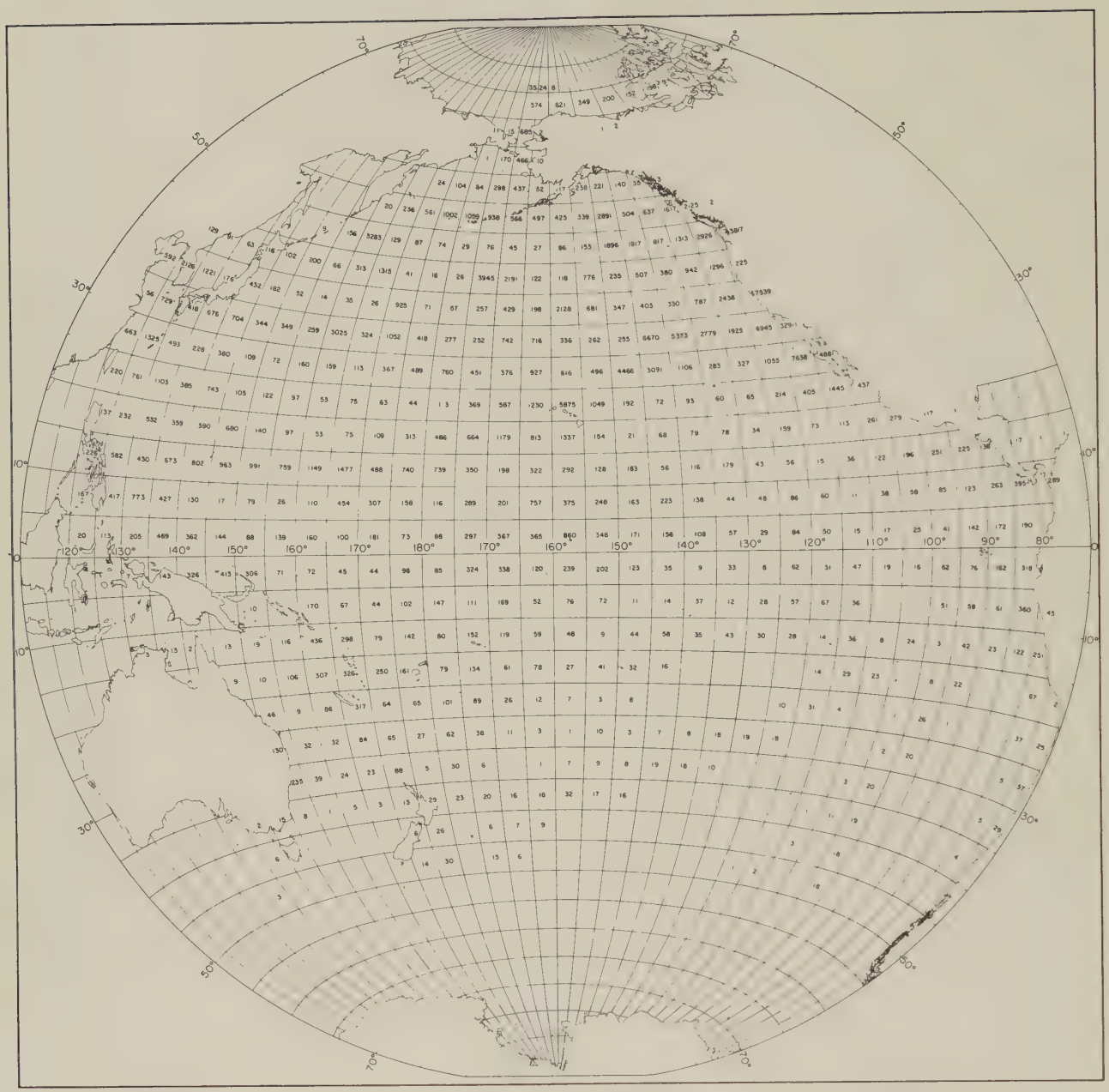

CHART 24. Bathythermograph observations, North and South Pacific, 1941–1954; total, 234,253

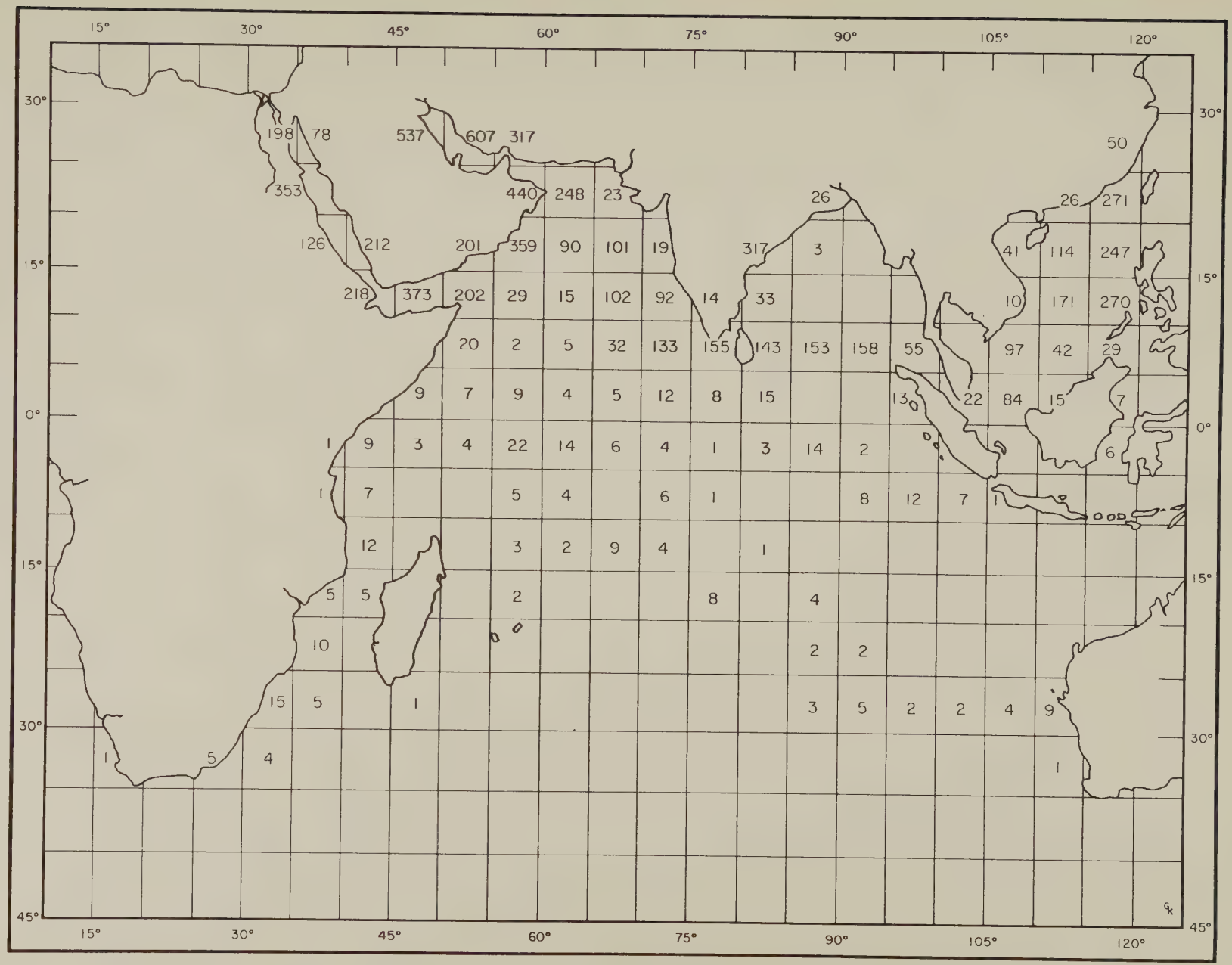

CHART 25. Bathythermograph observations, **Indian Ocean, 1941–1954; total, 8,034**

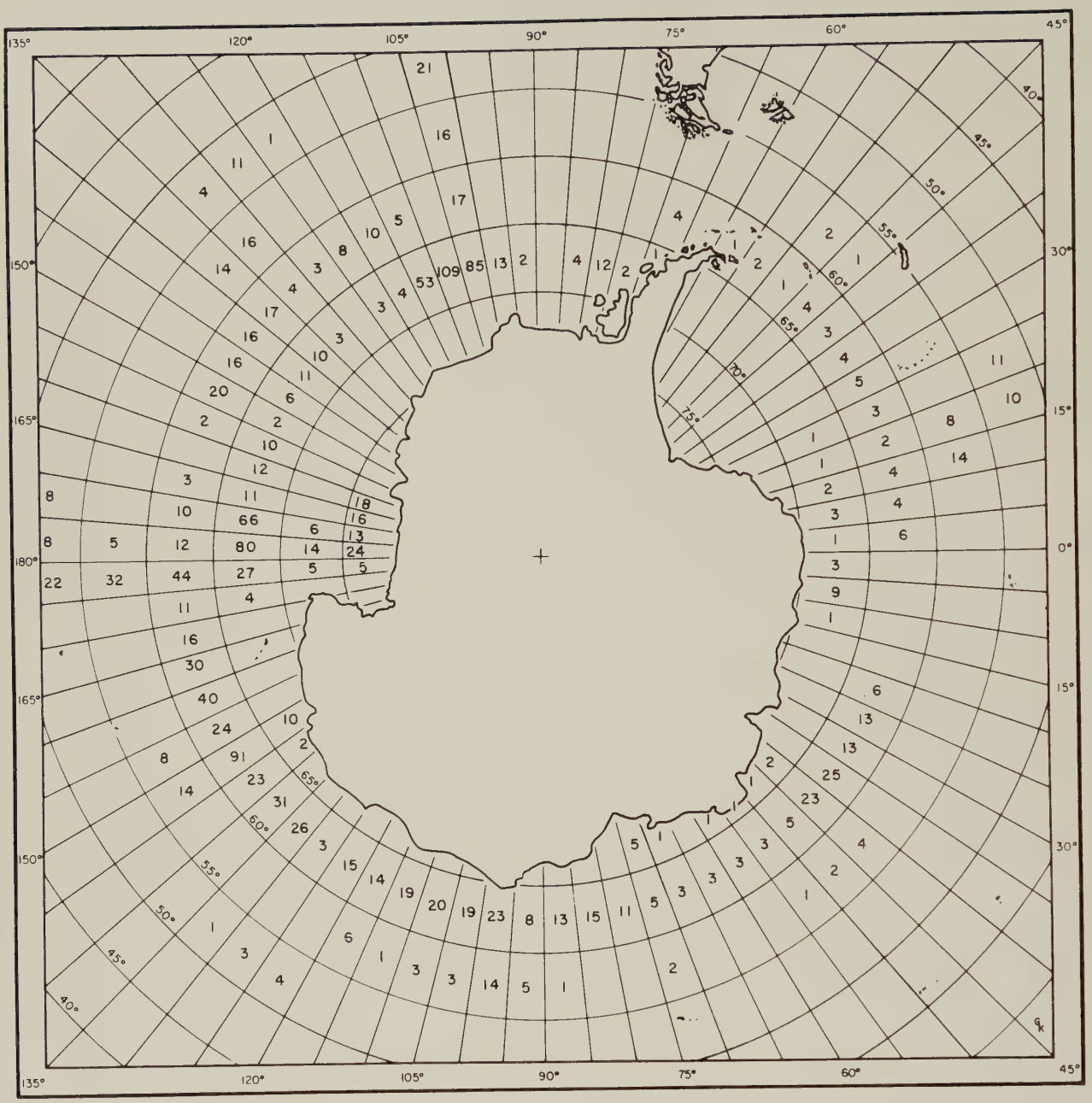

CHART 26. Bathythermograph observations, Antarctic Ocean, 1941–1954; total, 1,736

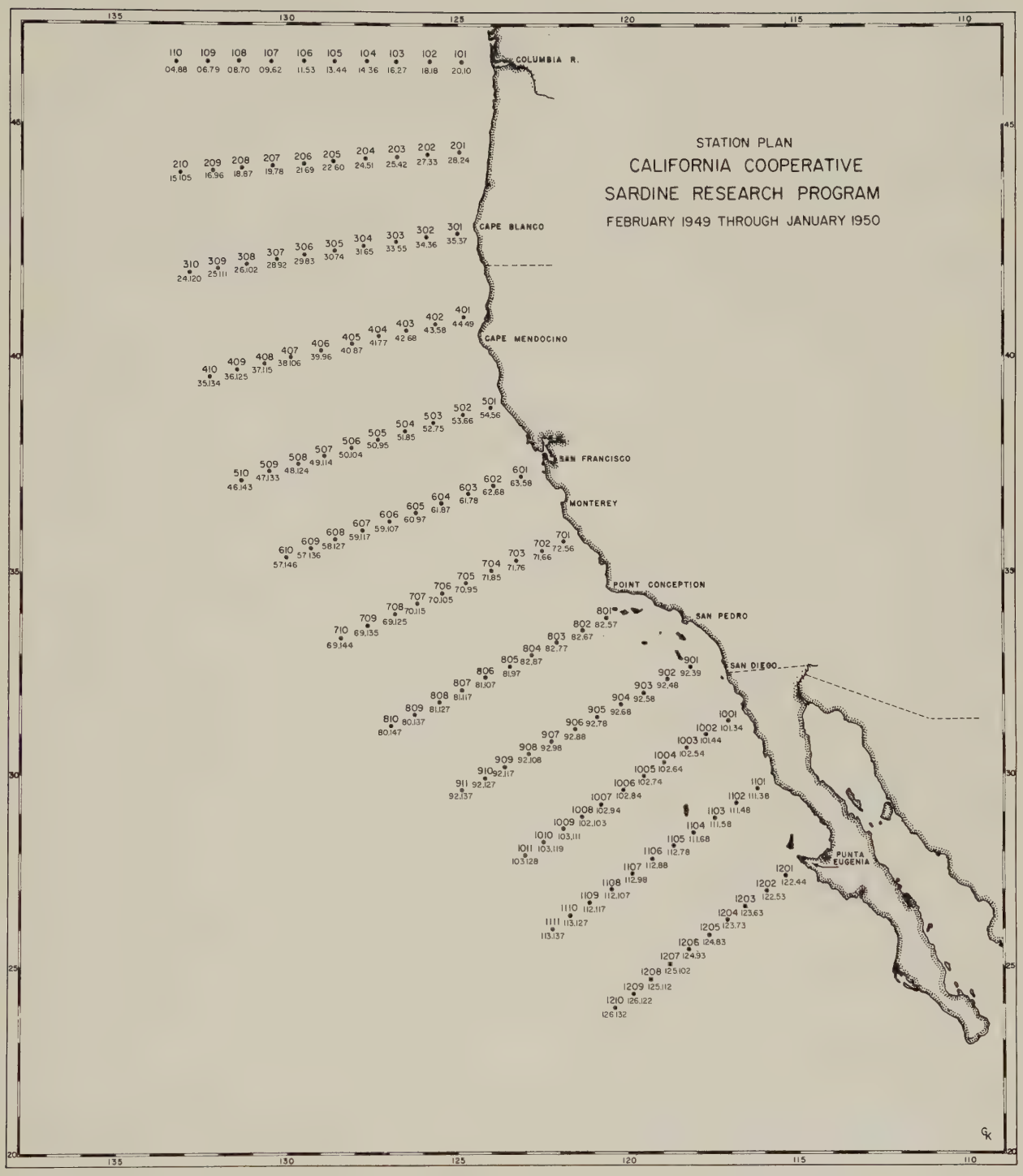

CHART 27. Station plan of the California Cooperative Oceanic Fisheries Investigations (formerly California Cooperative Sardine Research Program) from February, 1949, to January, 1950, inclusive, with equivalent numbers according to present station numbering system

Explanation of Tables

SIDE RUNNING HEADS

Cruise-identifying information is shown in the margin near the top of the page. The first line is an abbreviation of the name of the organization responsible for the data. The second and third lines give the cruise identification. In the case of data collected in the California Cooperative Oceanic Fisheries Investigations research program, for example, CCOFI 5401 signifies the January cruise of 1954.

Individual station numbers are given in the margin opposite the station data. Raised numbers for the CCOFI stations indicate a position between lines or between stations of the standard station pattern. Station locations are shown in the appropriate position charts.

HEADINGS OF GROUPS OF COLUMNS

OBSERVED: Corrected data at accepted depths of observation.

INTERPOLATED: Data at standard depths, interpolated from smooth distribution curves or by machine-interpolation programs (see Notes on Particular Cruises). The standard depths are those selected by the agencies.

COMPUTED: The results of computations based, in general, on interpolated values.

COLUMN HEADINGS

Z — Depth in meters at which observation was made or an interpolated value obtained.

T — Temperature of water in degrees Celsius.

S — Salinity of water in grams per kilogram (‰).

O_2 — Concentration of dissolved oxygen in milliliters per liter (ml/L).

PO_4-P — Concentration of dissolved inorganic phosphorus in microgram atoms per liter (μg at/L) or micromoles per liter.

σ_t — Sigma-t in grams per liter (g/L). Sigma-t can be defined

$$\sigma_t = 1000\ (\rho_{ST0} - 1)$$

where ρ_{ST0} is the density, in grams per milliliter, of water of salinity, S, temperature, T, and at standard atmospheric pressure. Density is expressed in these units to be consistent with the tables used for the computations.

δ — Specific volume anomaly, in centiliters per ton (cl/ton), although most of the column headings state $10^{-5}cm^3/g$. The difference between the two units is negligible in these data (Pollak, 1961), but the correct units are centiliters per ton (or $10^{-5}ml/g$). Specific volume anomaly is defined as the difference between the specific volume of the water at a specified depth and the specific volume of a standard water with salinity of 35‰ and temperature of 0°C at the same depth. Specific volume anomaly is expressed in these units to be consistent with the tables used for the computations.

δ_T — Thermosteric anomaly, the pressure-independent part of the specific volume anomaly. Specific volume anomaly is defined

$$\delta = \alpha_{stp} - \alpha_{35,0,p}$$

and is computed as

$$\delta = \Delta_{st} + \delta_{sp} + \delta_{tp}$$

The quantity Δ_{st} has been discussed by Sverdrup, Johnson and Fleming (1946, p. 58) and approximately represents potential specific volume anomaly. It is used here with the name (thermosteric anomaly), symbol (δ_T) and unit (centiliter per ton) suggested by Montgomery and Wooster (1954) although most of the column headings state $10^{-5}cm^3/g$. The difference between the two units is negligible in these data (Pollak, 1961), but the correct units are centiliters per ton.

ΔD — Geopotential anomaly, in dynamic meters (dynamic height), of the layer of water between the surface and the designated standard pressure. Geopotential anomaly is the difference between the geopotential thickness of the observed layer and the geopotential thickness of a layer bounded by the same pressures but having standard temperature, 0°C, and salinity, 35‰. The tabulated anomaly is determined from an approximation of the integral

$$\Delta D = \int_0^{p_z} \delta\ dp$$

where p is pressure in decibars (assumed equal to depth in meters) and subscript z denotes the value at the bottom of the layer under consideration. Since geopotential thickness is the product of geometrical thickness and the acceleration of gravity, a dynamic meter is equal to 10^5 ergs per gram and is the change in geopotential over a vertical distance of approximately 1.02 meter.

SUPPLEMENTARY STATION INFORMATION

Supplementary information about each station is to be found just above the tabulated data. This information includes name of ship, date and time of observation, geographical location of station, depth of water, wind direction and force (usually Beaufort scale), a description of surface weather and sea state, and wire angle. When there is more than one cast on a station, messenger times and wire angles are given for the casts in the order of increasing depth.

NOTES ON THE TABULATION OF DATA

1. Observed temperatures obtained by thermograph, bucket thermometer or bathythermograph are reported only to tenths of a degree. Temperatures by reversing thermometer are reported to hundredths of a degree.

2. Missing observed values are indicated by a hyphen (-).

3. Extrapolated values and values interpolated between remote observations are entered within parentheses.

4. Observed data from different casts are separated by a blank line.

5. The following notations have been used where appropriate.

For premature or delayed closure of water bottle and reversal of thermometers:

p pretrip or posttrip

For values which are not used in interpolation because they seem to be in error:

r rejected value

u uncertain value

SIO
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5401

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m
N. B. SCOFIELD; February 2, 1954; 1927 GCT; 35°05'N, 136°55'W; sounding, 950+ fm; wind, 170°, force 4; weather, drizzle; sea, moderate; wire angle, 18°. a)										45.220 (24)
0	16.00	33.80	5.66	0	16.00	33.80	5.66	24.85	311	0.00
48	16.02	33.87	5.67	10	(16.03)	(33.83)	(5.66)	(24.86)	(310)	(0.03)
57	15.90	33.87	5.68	20	(16.04)	(33.84)	(5.66)	(24.86)	(310)	(0.06)
133	15.32	33.83	5.70	30	(16.05)	(33.86)	(5.66)	(24.88)	(308)	(0.09)
142	14.62	33.84	5.63	50	16.04	33.87	5.66	24.89	307	0.16
152	13.85	33.73	5.64	75	15.74	33.86	5.67	24.96	301	0.23
161	13.43	33.68	5.68	100	15.59	33.85	5.68	24.98	299	0.31
180	12.64	33.65	5.53	150	14.00	33.75	5.66	25.24	274	0.45
198	11.01	33.49	5.38	200	10.85	33.49	5.33	25.65	235	0.58
217	9.98	33.58	5.10	250	9.03	33.67	4.57	26.09	193	0.69
244	9.16	33.64	4.67	300	8.10	33.94	4.05	26.45	159	0.78
281	8.44	33.87	4.19	400	6.54	33.98	2.86	26.69	136	0.93
325	7.68	33.99	3.86	500	5.62	34.05	1.72	26.87	119	1.07
370	6.90	33.96	3.27	600	4.97	34.11	0.98	27.00	107	1.18
462	5.95	34.03	2.10	700	4.53	34.25	0.55	27.16	92	1.29
553	5.22	34.07	1.24	800	4.16	34.35	0.37	27.27	81	1.39
740	4.38	34.29	0.44	1000	(3.47)	(34.46)		(27.42)	(67)	(1.55)
932	3.70	34.42	0.34							
N. B. SCOFIELD; February 1, 1954; 1954, 2107 GCT; 33°53'N, 136°53'W; sounding, 950+ fm; wind, 180°, force 2; weather, fog; sea, moderate; wire angle, 04°, 05°.										49.230 (23)
0	16.86	34.14	5.56	0	16.86	34.14	5.56	24.91	305	0.00
40	17.16	34.36	5.50	10	(16.91)	(34.16)	(5.54)	(24.92)	(304)	(0.03)
80	17.54	34.47	5.45	20	(17.00)	(34.21)	(5.53)	(24.93)	(303)	(0.06)
119	17.57	34.54	5.38	30	(17.08)	(34.25)	(5.52)	(24.94)	(302)	(0.09)
134	16.42	34.16	5.37	50	17.25	34.33	5.48	24.96	300	0.15
148	15.28	34.02	5.40	75	17.50	34.45	5.46	25.00	297	0.23
163	14.32	34.01	5.42	100	17.70	34.52	5.40	25.00	297	0.30
				150	14.95	34.01	5.42	25.24	274	0.45
176	14.39	34.09	5.35	200	11.86	33.88	5.34	25.77	223	0.57
196	12.12	33.88	5.38	250	10.13	33.93	5.03	26.12	190	0.68
220	11.06	33.89	5.18	300	8.80	33.97	4.51	26.36	167	0.77
244	10.29	33.93	5.03	400	7.33	34.02	3.93	26.62	143	0.93
283	9.14	33.94	4.69	500	5.83	34.04	2.13	26.84	122	1.07
333	8.28	34.02	4.30	600	4.97	34.13	1.07	27.01	106	1.19
392	7.42	34.02	4.00	700	4.48	34.23	0.52	27.15	92	1.30
491	5.92	34.03	2.26	800	4.16	34.32	0.36	27.26	82	1.39
590	5.02	34.12	1.13	1000	(3.67)	(34.49)	(0.38)	(27.44)	(65)	(1.56)
788	4.20	34.30	0.38							
986	3.70	34.49	0.39							

a) The RV N. B. Scofield of the California Department of Fish and Game occupied hydrographic stations on Cruise 5401 during a special albacore investigation survey. The stations are listed by CCOFI numbers in numerical order with auxiliary numbers in parentheses to indicate chronological order.

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5401

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
58.245 (22)	N. B. SCOFIELD; January 31, 1954; 1905 GCT; 31°57'N, 136°55'W; sounding, 950+ fm; wind, 180°, force 4; weather, overcast; sea, very rough; wire angle, 08°.									
0	17.29	34.33	5.34	0	17.29	34.33	5.34	24.95	301	0.00
127	16.26	34.08	5.38	10	(17.27)	(34.33)	(5.34)	(24.96)	(300)	(0.03)
146	15.20	33.96	5.42	20	(17.26)	(34.32)	(5.34)	(24.95)	(301)	(0.06)
156	14.64	33.93	5.41	30	(17.25)	(34.32)	(5.34)	(24.95)	(301)	(0.09)
165	14.10	33.84	5.43	50	(17.23)	(34.32)	(5.35)	(24.96)	(300)	(0.15)
185	12.60	33.78	5.37	75	(17.19)	(34.31)	(5.35)	(24.95)	(301)	(0.23)
205	12.05	33.84	5.20	100	(17.13)	(34.29)	(5.36)	(24.96)	(300)	(0.30)
223	11.68	33.93	5.09	150	15.43	34.08	5.43	25.18	279	(0.45)
243	10.92	33.98	5.02	200	12.19	33.82	5.25	25.66	234	(0.58)
262	10.60	34.00	5.00	250	10.80	33.99	5.04	26.05	197	(0.69)
281	10.26	34.07	4.94	300	9.70	34.04	4.80	26.27	176	(0.79)
300	9.70	34.04	4.80	400	7.39	34.01	4.03	26.61	144	(0.96)
340	8.73	34.07	4.56	500	6.05	34.01	2.73	26.78	128	(1.10)
388	7.61	34.02	4.18	600	4.97	34.12	1.25	27.00	107	(1.22)
487	6.20	34.00	2.92	700	4.47	34.26	0.53	27.16	92	(1.33)
585	5.08	34.09	1.42	800	4.13	34.34	0.41	27.27	81	(1.42)
781	4.19	34.33	0.41	1000	(3.60)	(34.44)	(0.46)	(27.40)	(69)	(1.58)
978	3.66	34.43	0.42							
59.175 (11)	N. B. SCOFIELD; January 18, 1954; 1818, 1848 GCT; 34°00'N, 131°55'W; sounding, 950+ fm; wind, 290°, force 4; weather, partly cloudy; sea, rough; wire angle, 14°, 21°.									
0	16.12	33.63	5.79	0	16.12	33.63	5.79	24.69	326	0.00
106	16.14	33.62	5.72	10	(16.12)	(33.63)	(5.79)	(24.69)	(326)	(0.03)
115	16.12	33.59	5.58	20	(16.12)	(33.63)	(5.78)	(24.69)	(326)	(0.06)
125	14.82	33.60	5.81	30	(16.12)	(33.63)	(5.78)	(24.69)	(326)	(0.10)
134	14.38	33.77	5.71	50	(16.13)	(33.62)	(5.77)	(24.68)	(327)	(0.16)
144	14.06	33.67	5.67	75	(16.15)	(33.62)	(5.77)	(24.67)	(328)	(0.25)
163	12.48	33.48	5.68	100	(16.16)	(33.62)	(5.75)	(24.67)	(328)	(0.33)
				150	13.02	33.53	5.65	25.28	270	(0.48)
170	12.02	33.44	5.63	200	9.96	33.61	5.38	25.90	211	(0.60)
189	11.28	33.49	5.49	250	9.04	33.77	4.72	26.17	185	(0.70)
225	9.42	33.62	5.09	300	8.16	33.96	3.93	26.46	158	(0.79)
271	8.70	33.95	4.39	400	6.60	34.01	2.48	26.72	133	(0.94)
362	7.10	33.98	3.05	500	5.56	34.20	1.24	27.00	107	(1.07)
455	5.98	34.09	1.67	600	4.86	34.28	0.74	27.14	93	(1.18)
548	5.19	34.27	0.94	700	4.40	34.29	0.49	27.20	88	(1.27)
738	4.29	34.29	0.41	800	4.12	34.31	0.36	27.25	83	(1.36)
935	3.84	34.47	0.33	1000	(3.74)	(34.49)		(27.43)	(66)	(1.53)

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

N. B. SCOFIELD; February 4, 1954; 1910 GCT; 32°50'N, 132°40'W; sounding, 450 fm; wind, 220°, force 1; weather, cloudy; sea, rough; wire angle, 00°. 62.190 (25)

0	16.29	33.55	5.70							
390	6.28	34.02	2.61							
490	5.37	34.07	1.45							
589	4.70	34.19	0.78							
690	4.36	34.31	0.46							

N. B. SCOFIELD; January 30, 1954; 1859 GCT; 30°00'N, 136°50'W; sounding, 950+ fm; wind, 180°, force 2; weather, overcast; sea, slight; wire angle, 08°. 65.265 (21)

0	18.37	34.56	5.38	0	18.37	34.56	5.38	24.86	310	0.00
98	17.87	34.53	5.35	10	(18.29)	(34.55)	(5.38)	(24.88)	(308)	(0.03)
117	17.91	34.56	5.36	20	(18.23)	(34.55)	(5.38)	(24.89)	(307)	(0.06)
137	17.83	34.65	5.34	30	(18.17)	(34.55)	(5.38)	(24.90)	(306)	(0.09)
156	16.41	34.36	5.26	50	(18.05)	(34.54)	(5.38)	(24.93)	(303)	(0.15)
176	15.31	34.18	5.29	75	(17.93)	(34.53)	(5.37)	(24.95)	(301)	(0.23)
195	14.44	34.09	5.17	100	17.87	34.53	5.36	24.96	300	(0.31)
214	13.37	34.13	4.98	150	17.00	34.47	5.28	25.13	284	(0.45)
233	11.47	34.04	4.86	200	14.17	34.10	5.10	25.48	251	(0.59)
254	11.06	34.00	4.81	250	11.14	34.01	4.83	26.00	202	(0.70)
272	10.28	34.00	4.76	300	9.53	34.05	4.63	26.32	171	(0.80)
292	9.70	34.04	4.66	400	7.34	34.03	3.71	26.63	142	(0.96)
342	8.60	34.10	4.40	500	6.01	34.08	2.18	26.85	121	(1.10)
389	7.54	34.03	3.88	600	5.15	34.15	1.03	27.01	106	(1.22)
487	6.16	34.07	2.39	700	4.65	34.25	0.53	27.14	93	(1.33)
586	5.22	34.14	1.14	800	4.26	34.35	0.48	27.26	82	(1.42)
782	4.31	34.34	0.39	1000	(3.58)	(34.47)	(0.58)	(27.43)	(66)	(1.58)
979	3.67	34.45	0.54							

N. B. SCOFIELD; January 16, 1954; 1826 GCT; 34°07'N, 126°44'W; sounding, 950+ fm; wind, 220°, force 5; weather, overcast; sea, rough; wire angle, 22°. 69.120 (10)

0	14.10	33.08	5.55	0	14.10	33.08	5.55	24.70	325	0.00
51	14.06	33.06	5.82	10	(14.10)	(33.08)	(5.56)	(24.70)	(325)	(0.03)
60	13.94	33.15	5.85	20	(14.10)	(33.08)	(5.60)	(24.70)	(325)	(0.06)
69	11.99	33.22	5.24	30	(14.10)	(33.07)	(5.66)	(24.70)	(325)	(0.10)
78	10.83	33.22	5.08	50	14.06	33.06	5.84	24.70	325	0.16
87	10.28	33.30	4.71	75	11.19	33.22	5.11	25.38	260	0.24
100	9.22	33.46	4.21	100	9.22	33.46	4.21	25.90	211	0.30
118	8.66	33.66	3.63	150	8.43	33.79	3.20	26.28	175	0.39
153	8.38	33.82	3.15	200	7.64	33.95	2.59	26.52	152	0.48
179	7.86	33.91	2.85	250	7.16	34.05	2.10	26.67	138	0.55
269	6.95	34.09	1.97	300	6.56	34.11	1.74	26.80	126	0.62
360	5.90	-	1.35	400	5.56	34.13	1.11	26.94	112	0.74
451	5.24	34.14	0.85	500	5.05	34.23	0.63	27.08	99	0.85
545	4.89	34.29	0.47	600	4.68	34.32	0.39	27.20	88	0.95
734	4.26	34.38	0.37	700	4.35	34.36	0.36	27.24	84	1.04
930	3.80	34.49	0.46	800	4.09	34.40	0.37	27.32	76	1.13
				1000	(3.66)	(34.51)		(27.45)	(64)	(1.28)

S10

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5401

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

72.280
(20)

N. B. SCOFIELD; January 29, 1954; 2029 GCT; 28°08'N, 137°03'W; sounding, 950+ fm; wind, 180°, force 4; weather, drizzle; sea, moderate; wire angle, 06°.

0	18.33	34.63	5.33	0	18.33	34.63	5.33	24.93	303	0.00
40	18.26	34.68	5.31	10	(18.30)	(34.63)	(5.33)	(24.93)	(303)	(0.03)
60	18.91	34.96	5.26	20	(18.27)	(34.64)	(5.33)	(24.95)	(301)	(0.06)
129	19.14	35.06	5.18	30	(18.26)	(34.64)	(5.32)	(24.95)	(301)	(0.09)
139	19.10	35.07	5.18	50	18.52	34.81	5.28	25.02	295	0.15
158	17.12	34.69	4.96	75	19.03	35.01	5.24	25.04	293	0.22
178	16.04	34.50	4.91	100	19.12	35.04	5.18	25.04	293	0.29
198	13.87	34.15	4.85	150	18.55	34.97	5.00	25.14	283	0.44
217	13.37	34.14	4.86	200	13.77	34.15	4.85	25.60	240	0.57
237	12.34	34.04	4.85	250	11.83	34.04	4.86	25.90	211	0.69
256	11.61	34.04	4.88	300	10.35	34.03	4.74	26.16	186	0.79
276	10.98	34.04	4.80	400	7.64	34.00	3.40	26.56	148	0.96
295	10.53	34.04	4.72	500	6.20	34.03	2.02	26.79	127	1.10
395	7.72	34.00	3.52	600	5.27	34.15	1.14	27.00	107	1.22
493	6.29	34.02	2.06	700	4.68	(34.24)	0.52	(27.13)	(94)	(1.33)
592	5.32	34.14	1.20	800	4.23	(34.33)	0.45	(27.25)	(83)	(1.43)
789	4.27	34.13u	0.42	1000	(3.64)	(34.44)	(0.66)	(27.40)	(69)	(1.60)
988	3.68	34.43	0.65							

77.55

HORIZON; January 10, 1954; 0418 GCT; 34°54'N, 121°12.5'W; sounding, 310 fm; wind, 310°, force 5; weather, clear; sea, rough; wire angle, 35°.

0	12.58	33.19	0	12.58	33.19		25.09	288	0.00
9	12.56	33.21	10	12.55	33.21		25.12	285	0.03
25	12.59	33.22	20	12.58	33.22		25.12	285	0.06
34	12.56	33.28	30	12.60	33.26		25.14	283	0.09
43	11.66	33.31	50	11.57	33.35		25.41	258	0.14
51	11.57	33.35	75	10.60	33.55		25.74	226	0.20
59	11.50	33.38	100	9.90	33.60		25.90	211	0.26
68	11.00	33.43	150	8.94	33.89		26.28	175	0.35
76	10.52	33.55	200	8.40	34.00		26.45	159	0.44
85	9.97	33.53	250	7.82	34.07		26.59	146	0.52
102	9.88	33.61	300	7.50	34.15		26.70	135	0.59
122	9.57	33.71	400	6.67	34.21		26.86	120	0.72
138	9.02	33.84							
171	8.82	33.96							
238	7.92	34.05							
331	7.28	34.18							
445	6.24	34.22							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

N. B. SCOFIELD; January 20, 1954; 1840 GCT; 29°59'N, 131°40'W; sounding, 950+ fm; wind, 040°, force 1; weather, cloudy; sea, very rough; wire angle, 04°. 77.205 (12)

0	17.47	34.13	5.39	0	17.47	34.13	5.39	24.77	319	0.00
99	17.46	-	5.40	10	(17.47)	(34.13)	(5.39)	(24.77)	(319)	(0.03)
118	16.25	34.13	5.46	20	(17.47)	(34.13)	(5.39)	(24.77)	(319)	(0.06)
129	16.20	34.10	5.43	30	(17.47)	(34.13)	(5.39)	(24.76)	(320)	(0.10)
138	15.69	34.13	5.32	50	(17.48)	(34.13)	(5.39)	(24.76)	(320)	(0.16)
149	15.08	34.01	5.26	75	(17.49)	(34.13)	(5.39)	(24.76)	(320)	(0.24)
157	14.44	33.93	5.22	100	17.45	(34.13)	5.39	(24.76)	(320)	(0.32)
176	13.40	33.86	5.18	150	14.95	33.99	5.25	25.22	276	(0.47)
196	11.98	33.81	5.06	200	11.70	33.81	5.05	25.74	226	(0.59)
246	9.78	33.86	4.77	250	9.66	33.87	4.74	26.15	187	(0.70)
294	8.80	33.99	4.46	300	8.68	33.99	4.40	26.40	164	(0.79)
393	6.98	33.98	3.47	400	6.83	33.98	3.35	26.66	139	(0.95)
492	5.58	34.04	1.97	500	5.53	34.05	1.86	26.88	118	(1.08)
589	4.98	34.16	0.94	600	4.91	34.18	0.86	27.06	101	(1.20)
787	4.28	34.36	0.39	700	4.53	34.29	0.46	27.19	89	(1.30)
985	3.74	34.48	0.62	800	4.24	34.37	0.40	27.28	80	(1.39)
				1000	(3.71)	(34.49)	(0.66)	(27.43)	(66)	(1.55)

N. B. SCOFIELD; January 15, 1954; 1856 GCT; 31°58'N, 126°53'W; sounding, 950+ fm; wind, 220°, force 2; weather, overcast; sea, moderate; wire angle, 06°. 78.140 (9)

0	15.42	33.20	5.76	0	15.42	33.20	5.76	24.51	343	0.00
90	14.90	33.17	5.81	10	(15.42)	(33.20)	(5.76)	(24.51)	(343)	(0.03)
99	13.34	33.13	5.97	20	(15.42)	(33.20)	(5.77)	(24.51)	(343)	(0.07)
108	12.74	33.12	5.97	30	(15.42)	(33.20)	(5.77)	(24.51)	(343)	(0.10)
118	11.93	33.08	5.79	50	(15.40)	(33.20)	(5.78)	(24.52)	(342)	(0.17)
138	10.93	33.18	5.44	75	(15.38)	(33.20)	(5.80)	(24.52)	(342)	(0.26)
157	10.13	33.30	5.05	100	13.28	33.13	5.95	24.91	305	(0.34)
178	9.34	33.50	4.32	150	10.41	33.26	5.19	25.54	245	(0.48)
196	8.87	33.68	3.72	200	8.78	33.73	3.68	26.18	184	(0.59)
245	8.24	33.98	3.41	250	8.20	33.99	3.34	26.48	156	(0.68)
294	7.72	34.10	2.43	300	7.66	34.11	2.34	26.65	140	(0.75)
392	6.58	34.18	1.31	400	6.44	34.18	1.27	26.87	119	(0.89)
490	5.31	34.19	0.94	500	5.29	34.19	0.92	27.02	105	(1.00)
589	5.22	34.34	0.43	600	5.20	34.35	0.43	27.16	92	(1.11)
786	4.53	34.49	0.37	700	4.84	34.46	0.38	27.29	79	(1.20)
984	3.84	34.51	0.53	800	4.48	34.49	0.37	27.35	74	(1.28)
				1000	(3.78)	(34.51)	(0.57)	(27.44)	(65)	(1.44)

HORIZON; January 10, 1954; 1510 GCT; 34°17.5'N, 120°49'W; sounding, 430 fm; wind, 320°, force 5; weather, partly cloudy; sea, moderate; wire angle, 16°. 80.55

0	13.01	33.36	0	13.01	33.36	25.14	283	0.00
10	13.00	33.38	10	13.00	33.38	25.16	281	0.03
30	13.01	33.40	20	13.00	33.40	25.17	280	0.06
40	12.69	33.34	30	13.01	33.40	25.17	280	0.08
50	11.24	33.32	50	11.24	33.32	25.45	254	0.14
60	11.03	33.40	75	10.60	33.58	25.76	224	0.20
70	10.88	33.49	100	9.98	33.79	26.03	199	0.25
79	10.42	33.65	150	9.36	34.03	26.32	171	0.34
89	10.24	33.68	200	8.95	34.08	26.43	161	0.43
99	9.99	33.79	250	8.59	34.14	26.53	151	0.51
124	9.72	33.94	300	7.92	34.21	26.69	136	0.58
153	9.31	34.04	400	6.84	34.32	26.93	113	0.72
203	8.93	34.08	500	6.17	34.38	27.06	101	0.83
262	8.48	34.20	600	5.59	34.44	27.18	90	0.93
366	7.14	34.20						
487	6.25	34.35						
611	5.52	34.30						

S10

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m
80.70	HORIZON; January 10, 1954; 2326 GCT; 33°48.5'N, 121°49.5'W; sounding, 2000 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 30°.									
0	14.05	33.30		0	14.05	33.30		24.88	308	0.00
9	14.02	33.31		10	14.02	33.31		24.90	306	0.03
23	13.94	33.26		20	13.98	33.26		24.87	309	0.06
45	13.51	33.34		30	13.85	33.29		24.92	304	0.09
54	12.80	33.31		50	13.14	33.33		25.09	288	0.15
63	12.27	33.19		75	10.70	33.31		25.53	246	0.22
72	11.10	33.28		100	9.32	33.60		25.99	202	0.28
89	9.54	33.42		150	8.36	33.83		26.32	171	0.37
111	9.12	33.68		200	7.78	33.99		26.53	151	0.45
138	8.52	33.78		250	7.34	34.01		26.61	144	0.53
181	7.98	33.98		300	7.04	34.18		26.79	127	0.60
242	7.40	34.00		400	6.42	34.32		26.98	109	0.72
330	6.89	34.25		500	5.76	34.34		27.08	99	0.83
440	6.16	34.33		600	5.21	34.34		27.15	92	0.93
596	5.22	34.34		700	4.79	34.44		27.28	80	1.02
795	4.43	34.49		800	4.42	34.49		27.36	73	1.11
1084	3.54	34.52		1000	3.78	34.52		27.45	64	1.26
80.90	HORIZON; January 11, 1954; 1025 GCT; 33°02.5'N, 123°13.5'W; sounding, 2350 fm; wind, 240°, force 5; weather, cloudy; sea, moderate; wire angle, 35°.									
0	14.69	33.14		0	14.69	33.14		24.63	332	0.00
8	14.68	33.02		10	14.68	33.02		24.54	340	0.03
21	14.68	33.04		20	14.67	33.04		24.55	340	0.07
42	14.70	33.05		30	14.69	33.05		24.56	339	0.10
51	14.70	33.04		50	14.70	33.04		24.55	340	0.17
59	14.70	33.06		75	13.80	33.07		24.76	320	0.25
67	14.34	33.04		100	11.95	33.06		25.11	286	0.33
82	13.28	33.12		150	9.30	33.55		25.96	205	0.45
102	11.80	33.06		200	8.78	33.99		26.38	166	0.55
125	9.90	33.22		250	8.20	34.06		26.53	151	0.63
163	9.12	33.71		300	7.70	34.10		26.63	142	0.70
214	8.63	34.02		400	6.83	34.17		26.81	125	0.84
286	7.83	34.09		500	6.06	34.24		26.97	110	0.97
371	7.06	34.15		600	5.40	34.32		27.11	96	1.08
489	6.14	34.23		700	4.90	34.40		27.23	85	1.17
648	5.14	34.36		800	4.54	34.48		27.34	74	1.26
896	4.24	34.54								
80.110	HORIZON; January 11, 1954; 2037 GCT; 32°25'N, 124°35'W; sounding, 2800 fm; wind, 300°, force 6; weather, rain; sea, high; wire angle, 23°.									
0	15.15	33.13		0	15.15	33.13		24.52	342	0.00
10	15.12	33.11		10	15.12	33.11		24.51	343	0.03
30	15.14	33.14		20	15.11	33.13		24.53	341	0.07
52	15.08	33.12		30	15.14	33.14		24.53	341	0.10
67	14.66	33.04		50	15.10	33.13		24.53	341	0.17
75	14.17	33.05		75	14.17	33.05		24.67	328	0.26
89	12.93	33.04		100	12.40	33.07		25.04	293	0.33
111	11.94	33.10		150	10.06	33.22		25.57	242	0.47
142	10.52	33.18		200	8.56	33.71		26.20	183	0.58
163	9.44	33.30		250	7.90	33.90		26.45	159	0.66
215	8.33	33.84		300	7.30	33.97		26.59	146	0.74
290	7.42	33.95		400	6.24	34.18		26.90	116	0.88
389	6.32	34.16		500	5.65	34.29		27.06	101	0.99
524	5.52	34.30		600	5.11	34.31		27.14	93	1.10
707	4.66	34.33		700	4.68	34.33		27.20	88	1.20
932	4.03	34.43		800	4.36	34.36		27.26	82	1.29
1246	3.24	-		1000	3.84	(34.47)		(27.40)	(69)	(1.45)

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 cm^3/g$	dyn. m

N. B. SCOFIELD; January 28, 1954; 1901, 1937 GCT; 26°05'N, 136°49'W; sounding, 950+ fm; wind, 130°, force 2; weather, overcast; sea, moderate; wire angle, 10°, 15°. 81300 (19)

0	19.02	34.71	5.16	0	19.02	34.71	5.16	24.81	315	0.00
98	18.87	34.72	5.14	10	(18.99)	(34.71)	(5.16)	(24.82)	(314)	(0.03)
127	18.74	34.73	5.17	20	(18.95)	(34.71)	(5.16)	(24.83)	(313)	(0.06)
136	17.63	34.52	5.18	30	(18.90)	(34.72)	(5.16)	(24.86)	(310)	(0.09)
146	17.42	34.52	5.18	50	(18.84)	(34.72)	(5.15)	(24.87)	(309)	(0.16)
164	16.62	34.36	5.02	75	(18.80)	(34.72)	(5.15)	(24.87)	(309)	(0.23)
183	14.54	34.11	4.91	100	18.85	34.72	5.15	24.86	310	(0.31)
203	13.12	34.02	4.82	150	17.35	34.51	5.15	25.08	289	(0.46)
222	12.16	33.96	4.79	200	13.36	34.04	4.85	25.60	240	(0.60)
241	10.92	33.87	4.54	250	10.55	33.88	4.35	26.00	202	(0.71)
261	10.10	33.93	4.19	300	9.12	34.05	4.13	26.37	166	(0.81)
288	9.52	34.01	4.12	400	7.73	34.18	2.39	26.69	136	(0.96)
335	8.45	34.09	3.98	500	6.29	(34.25)	1.22	(26.94)	(112)	(1.10)
382	7.98	34.16	2.63	600	5.46		0.67			
478	6.58	34.25	1.43	700	4.97		0.48			
				800	4.63		0.47			
573	5.62	34.25	0.75	1000	(4.10)		(0.84)			
765	4.75	34.23u	0.46							
960	4.20	34.57	0.74							

HORIZON; January 9, 1954; 0551 GCT; 34°14.5'N, 119°59'W; sounding, 325 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 10°. 8247

0	13.18	33.37	0	13.18	33.37		25.12	285	0.00
10	13.16	33.37	10	13.16	33.37		25.12	285	0.03
30	12.94	33.39	20	13.08	33.38		25.15	282	0.06
40	11.48	33.37	30	12.94	33.39		25.18	280	0.08
50	10.94	33.46	50	10.94	33.46		25.61	239	0.14
60	10.39	33.60	75	10.01	33.74		25.99	202	0.19
70	10.08	33.74	100	9.60	33.91		26.19	184	0.24
80	9.94	33.74	150	9.30	34.03		26.33	170	0.33
90	9.70	33.91	200	8.85	34.08		26.44	160	0.42
100	9.60	33.91	250	8.26	34.17		26.60	145	0.49
119	9.50	33.98	300	7.80	(34.20)		(26.69)	(136)	(0.57)
144	9.33	34.02	400	7.12					
163	9.22	34.05	500	6.49					
202	8.80	34.08							
281	7.97	34.19							
386	7.21	34.18u							
508	6.46	34.21u							

SIO

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5401

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

83.43 **HORIZON**; January 9, 1954; 0247 GCT; 34°08'N, 119°34'W; sounding, 130 fm; wind, 280°, force 4; weather, clear; sea, slight; wire angle, 03°.

0	14.36	33.40	0	14.36	33.40	24.90	306	0.00
10	14.36	33.39	10	14.36	33.39	24.89	307	0.03
15	14.36	33.40	20	14.28	33.39	24.91	305	0.06
20	14.28	33.39	30	13.92	33.38	24.97	300	0.09
26	14.25	33.39	50	12.27	33.32	25.25	273	0.15
31	13.82	33.37	75	10.83	33.44	25.61	239	0.21
36	13.34	33.33	100	10.20	33.66	25.89	212	0.27
47	12.54	33.31	150	9.48	34.00	26.28	175	0.37
57	11.82	33.39	200	8.99	34.13	26.46	158	0.45
67	11.62	33.43						
77	10.73	33.45						
97	10.26	33.64						
112	10.02	33.72						
142	9.56	33.95						
173	9.26	34.09						
209	8.89	34.14						

83.51 HORIZON; January 9, 1954; 1056 GCT; 33°51.5'N. 120°08.5'W; sounding, 200 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 10°.

0	13.17	33.30	0	13.17	33.30	25.06	291	0.00
10	13.18	33.35	10	13.18	33.35	25.10	287	0.03
15	13.17	33.30	20	13.16	33.33	25.09	288	0.06
20	13.16	33.33	30	12.80	33.35	25.18	280	0.09
25	13.06	33.34	50	11.75	33.39	25.41	258	0.14
30	12.80	33.35	75	10.12	33.57	25.84	217	0.20
35	12.64	33.37	100	9.68	33.76	26.06	196	0.25
46	12.14	33.37	150	9.57	33.86	26.15	187	0.35
56	10.92	33.46	200	9.04	34.02	26.37	166	0.44
66	10.29	33.54	250	8.52	34.15	26.55	149	0.52
81	10.02	33.60	300	7.93	34.21	26.69	136	0.59
101	9.66	33.77						
127	9.65	33.84						
167	9.44	33.88						
207	8.98	34.05						
248	8.56	34.14						
307	7.86	34.22						

83.60 HORIZON; January 9, 1954; 1638 GCT; 33°33'N, 120°45.5'W; sounding, 1450 fm; wind, 320°, force 6; weather, partly cloudy; sea, high; wire angle, 38°.

0	12.52	33.40	0	12.52	33.40	25.27	271	0.00
8	12.50	33.37	10	12.50	33.37	25.25	273	0.03
25	12.48	33.41	20	12.49	33.41	25.28	270	0.05
37	12.35	33.40	30	12.45	33.41	25.29	269	0.08
50	11.79	33.37	50	11.79	33.37	25.38	260	0.13
58	11.16	33.44	75	10.55	33.41	25.64	236	0.20
66	11.02	33.37	100	9.82	33.64	25.94	207	0.25
78	10.41	33.44	150	8.95	33.82	26.22	181	0.35
86	10.10	33.49	200	8.17	34.09	26.56	148	0.44
99	9.86	33.64	250	7.73	34.18	26.69	136	0.51
123	9.30	33.66	300	7.15	34.24	26.82	124	0.58
146	9.02	33.78	400	6.50	34.23	26.90	116	0.70
189	8.29	34.07	500	5.82	34.26	27.01	106	0.82
234	7.90	34.15						
315	7.04	34.25						
428	6.34	34.23						
555	5.44	34.31						

OBSERVED				INTERPOLATED				COMPUTED			SIO
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD	CCOFI
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^5 cm^3/g	dyn. m	5401
N. B. SCOFIELD; January 21, 1954; 1915 GCT; 28°06'N, 131°53'W; sounding, 950+ fm; wind, 180°, force 3; weather, cloudy; sea, moderate; wire angle, 08°.											83.225 (13)
0	17.74	34.23	5.38	0	17.74	34.23	5.38	24.77	319	0.00	
60	18.50	34.64	5.33	10	(17.75)	(34.23)	(5.35)	(24.76)	(320)	(0.03)	
118	16.86	34.32	5.37	20	(17.77)	(34.24)	(5.35)	(24.77)	(319)	(0.06)	
127	16.88	34.38	5.24	30	(17.77)	(34.24)	(5.35)	(24.77)	(319)	(0.10)	
137	17.24	34.51	5.19	50	(18.46)	(34.57)	(5.35)	(24.85)	(311)	(0.16)	
147	17.05	34.54	5.17	75	18.45	34.59	5.35	24.87	309	(0.24)	
166	16.61	34.60	5.12	100	18.42	34.63	5.35	24.90	306	(0.31)	
196	15.06	34.31	4.96	150	16.99	34.55	5.14	25.20	278	(0.46)	
215	13.79	34.14	4.93	200	14.75	34.26	4.93	25.48	251	(0.60)	
244	12.01	34.01	4.90	250	11.70	33.99	4.88	25.88	213	(0.72)	
272	10.51	33.89	4.76	300	9.21	33.90	4.36	26.25	178	(0.82)	
292	9.44	33.89	4.48	400	7.08	34.05	3.06	26.68	137	(0.98)	
388	7.32	34.04	3.27	500	5.66	34.13	1.71	26.93	113	(1.11)	
584	4.98	34.18	0.92	600	4.89	34.19	0.84	27.07	100	(1.22)	
779	4.26	34.39	0.44	700	4.49	34.32	0.51	27.22	86	(1.33)	
976	3.77	34.45	0.71	800	4.20	34.40	0.45	27.31	77	(1.42)	
				1000	(3.70)	(34.45)	(0.76)	(27.40)	(69)	(1.58)	
HORIZON; January 8, 1954; 1835 GCT; 33°47'N, 119°31.5'W; sounding, 1060 fm; wind, 280°, force 4; weather, cloudy; sea, moderate; wire angle, 10°.											85.45
0	14.68	33.40		0	14.68	33.40		24.83	313	0.00	
10	14.66	33.39		10	14.66	33.39		24.83	313	0.03	
30	14.64	33.38		20	14.65	33.38		24.82	314	0.06	
40	14.56	33.51u		30	14.64	33.38		24.82	314	0.09	
51	14.31	33.37		50	14.36	33.37		24.89	307	0.16	
61	12.30	33.26		75	11.50	33.34		25.41	258	0.23	
71	11.80	33.30		100	10.17	33.54		25.80	221	0.29	
81	11.02	33.41		150	9.15	33.85		26.22	181	0.39	
92	10.32	33.42		200	8.62	34.07		26.47	157	0.48	
101	10.16	33.55		250	8.29	34.19		26.62	143	0.55	
126	9.54	33.71		300	7.82	34.20		26.69	136	0.62	
156	9.08	33.88		400	7.12	34.23		26.82	124	0.76	
206	8.58	34.09		500	6.55	34.30		26.95	111	0.88	
264	8.18	34.20		600	5.87	34.34		27.07	100	1.00	
369	7.30	34.21									
489	6.62	34.29									
615	5.76	34.34									
HORIZON; January 8, 1954; 1112 GCT; 33°27.5'N, 120°12.5'W; sounding, 500 fm; wind, 310°, force 6; weather, clear; sea, very rough; wire angle, 33°.											85.55
0	12.92	33.29		0	12.92	33.29		25.11	286	0.00	
9	12.98	33.27		10	12.98	33.27		25.08	289	0.03	
26	12.84	33.30		20	12.91	33.29		25.11	286	0.06	
39	12.48	33.37		30	12.75	33.32		25.16	281	0.09	
48	11.87	33.31		50	11.81	33.31		25.33	265	0.14	
57	11.58	33.30		75	10.44	33.40		25.65	235	0.20	
66	11.19	33.35		100	9.51	33.57		25.94	207	0.26	
75	10.44	33.40		150	8.26	33.97		26.45	159	0.35	
88	9.86	33.51		200	8.02	34.08		26.57	148	0.43	
96	9.61	33.55		250	7.71	34.14		26.66	139	0.50	
119	8.96	33.69		300	6.93	34.18		26.80	126	0.57	
146	8.30	33.95		400	6.18	34.26		26.97	110	0.69	
195	8.06	34.07		500	5.90	34.32		27.05	102	0.81	
254	7.59	34.14		600	5.52	34.37		27.14	93	0.91	
360	6.32	34.23									
482	5.98	34.31									
611	5.48	34.37									

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5401

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

86.155
(8)

N. B. SCOFIELD; January 14, 1954; 1830 GCT; 29°58'N, 126°52'W; sounding, 950+ fm; wind, 320°, force 2; weather, overcast; sea, rough; wire angle, 10°.

0	16.58	33.60	5.68	0	16.58	33.60	5.68	24.56	339	0.00
78	16.62	33.62	5.63	10	(16.58)	(33.61)	(5.67)	(24.57)	(338)	(0.03)
87	16.56	33.62	5.62	20	(16.59)	(33.61)	(5.66)	(24.56)	(339)	(0.07)
97	15.00	33.41	5.87	30	(16.60)	(33.61)	(5.66)	(24.56)	(339)	(0.10)
106	15.24	33.60	5.78	50	(16.62)	(33.62)	(5.65)	(24.57)	(338)	(0.17)
116	14.94	33.60	5.75	75	(16.63)	(33.62)	(5.65)	(24.56)	(339)	(0.26)
135	14.33	33.58	5.65	100	15.01	33.43	5.86	24.78	318	(0.34)
154	13.32	33.53	5.55	150	13.60	33.55	5.58	25.17	280	(0.49)
174	12.08	33.46	5.50	200	10.58	33.50	5.21	25.70	230	(0.62)
194	10.74	33.48	5.29	250	9.10	33.80	4.55	26.19	184	(0.72)
290	8.10	33.96	4.02	300	7.90	33.97	3.90	26.50	154	(0.80)
387	6.48	34.00	2.58	400	6.29	34.01	2.35	26.76	129	(0.95)
485	5.46	34.12	1.24	500	5.34	34.14	1.12	26.98	109	(1.08)
582	4.89	34.22	0.66	600	4.81	34.25	0.60	27.12	95	(1.18)
777	4.28	34.39	0.45	700	4.49	34.34	0.46	27.22	85	(1.28)
975	3.76	34.47	0.64	800	4.21	34.41	0.45	27.32	76	(1.37)
				1000	(3.70)	(34.48)	(0.68)	(27.43)	(66)	(1.53)

87.40

HORIZON; January 6, 1954; 1015 GCT; 33°39.5'N, 118°59.5'W; sounding, 360 fm; wind, 220°, force 3; weather, missing; sea, slight; wire angle, 02°.

0	14.55	33.42	0	14.55	33.42		24.87	309	0.00
10	14.44	33.38	10	14.44	33.38		24.86	310	0.03
30	14.30	33.37	20	14.36	33.37		24.87	309	0.06
41	14.25	33.40	30	14.30	33.37		24.89	307	0.09
51	14.16	33.35	50	14.18	33.35		24.90	306	0.15
61	13.78	33.35	75	12.29	33.31		25.24	274	0.23
72	12.58	33.31	100	10.58	33.48		25.69	231	0.29
82	11.76	33.31	150	9.31	33.83		26.17	185	0.40
92	11.26	33.39	200	8.88	34.02		26.39	164	0.48
102	10.44	33.49	250	8.53	34.10		26.51	153	0.57
122	9.66	33.77	300	8.15	34.15		26.61	144	0.64
147	9.34	33.82	400	7.36	34.23		26.78	128	0.78
167	9.14	33.87	500	6.50	34.28		26.94	112	0.91
207	8.84	34.04							
249	8.56	34.10							
393	7.42	34.23							
513	6.40	34.29							

87.50

HORIZON; January 6, 1954; 1603 GCT; 33°20.5'N, 119°40.5'W; sounding, 45 fm; wind, 090°, force 1; weather, cloudy; sea, moderate; wire angle, 06°.

0	14.33	33.37	0	14.33	33.37		24.88	308	0.00
10	13.46	33.39	10	13.46	33.39		25.07	290	0.03
15	13.42	33.45	20	13.30	33.46		25.16	281	0.06
20	13.30	33.46	30	12.05	33.41		25.37	262	0.07
26	12.23	33.40	50	11.63	33.41		25.44	255	0.14
31	12.02	33.42							
36	11.93	33.44							
41	11.90	33.43							
52	11.54	33.41							

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

87.60

HORIZON; January 8, 1954; 0440 GCT; 33°01'N, 120°20.5'W; sounding, 1800 fm; wind, 300°, force 5; weather, clear; sea, rough; wire angle, 35°.

0	13.93	33.31	0	13.93	33.31		24.98	298	0.00
9	13.92	33.40	10	13.89	33.40		25.00	297	0.03
26	12.76	33.33	20	13.19	33.35		25.10	287	0.06
34	11.94	33.30	30	12.35	33.32		25.24	274	0.09
43	10.99	33.26	50	10.24	33.27		25.58	242	0.14
51	10.16	33.27	75	9.49	33.50		25.89	212	0.20
59	9.94	33.33	100	8.78	33.69		26.14	188	0.25
67	9.58	33.40	150	8.32	33.93		26.41	163	0.34
76	9.37	33.51	200	8.07	34.02		26.52	152	0.42
84	9.10	33.55	250	7.41	34.10		26.67	138	0.49
106	8.70	33.72	300	6.97	34.17		26.79	127	0.56
129	8.48	33.79	400	6.41	34.25		26.92	114	0.68
166	8.26	33.99	500	(5.94)	(34.25)		(26.99)	(108)	(0.80)
204	8.03	34.02							
279	7.12	34.14							
373	6.56	34.24							
481	6.03	34.25							

88.318 (18)

N. B. SCOFIELD; January 27, 1954; 1850, 1943 GCT; 24°03'N, 137°12'W; sounding, 950+ fm; wind, 100°, force 3; weather, cloudy; sea, moderate; wire angle, 09°, 12°.

0	19.92	35.21	5.03	0	19.92	35.21	5.03	24.96	300	0.00
20	19.71	35.09	5.07	10	19.80	35.14	5.05	24.94	302	0.03
146	18.21	34.74	5.09	20	19.71	35.09	5.07	24.93	303	0.06
166	17.72	34.70	4.98	30	(19.70)	(35.09)	(5.07)	(24.93)	(303)	(0.09)
186	17.54	34.72	4.94	50	(19.70)	(35.09)	(5.08)	(24.93)	(303)	(0.15)
205	15.70	34.38	4.94	75	(19.65)	(35.09)	(5.09)	(24.94)	(302)	(0.23)
224	14.16	34.21	4.85	100	(19.50)	(35.07)	(5.09)	(24.96)	(300)	(0.30)
				150	18.04	34.72	5.10	25.06	291	(0.45)
234	13.23	34.14	4.86	200	16.60	34.54	4.95	25.28	270	(0.60)
243	12.62	34.08	4.83	250	12.35	34.06	4.94	25.81	220	(0.72)
253	12.20	34.05	4.92	300	10.19	34.09	4.71	26.23	180	(0.83)
263	11.56	34.05	4.87	400	7.59	34.04	3.75	26.60	145	(0.99)
292	10.34	34.10	4.74	500	5.98	34.06	1.67	26.83	123	(1.13)
340	9.04	34.05	4.49	600	5.31	34.25	0.70	27.07	100	(1.25)
389	7.84	34.04	3.96	700	4.89	34.35	0.56	27.20	88	(1.35)
484	6.11	34.05	1.96	800	4.57	34.42	0.56	27.29	79	(1.45)
581	5.40	34.22	0.74	1000	(4.01)	(34.48)	(0.84)	(27.39)	(70)	(1.61)
776	4.64	34.40	0.56							
973	4.08	34.34u	0.79							

90.28

HORIZON; January 14, 1954; 0811 GCT; 33°28.5'N, 117°46.5'W; sounding, 45 fm; wind, 040°, force 2; weather, clear; sea, slight; wire angle, 00°.

0	13.89	33.36	0	13.89	33.36		24.96	300	0.00
10	13.87	33.39	10	13.87	33.39		24.99	298	0.03
15	13.88	33.37	20	13.78	33.37		24.99	298	0.06
20	13.78	33.37	30	13.68	33.39		25.03	294	0.09
26	13.74	33.37	50	12.45	33.31		25.21	277	0.15
31	13.62	33.39							
36	13.44	33.37							
41	13.38	-							
52	12.05	33.30							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

90.37 HORIZON; January 14, 1954; 0302 GCT; 33°12'N, 118°22'W; sounding, 650 fm; wind, 320°, force 2; weather, clear; sea, smooth; wire angle, 00°.

0	14.34	33.39	0	14.34	33.39	24.89	307	0.00
10	14.30	33.36	10	14.30	33.36	24.88	308	0.03
31	14.23	33.41	20	14.27	33.39	24.91	305	0.06
41	12.88	33.26	30	14.25	33.41	24.93	303	0.09
51	11.34	33.35	50	11.38	33.33	25.43	256	0.15
62	11.14	33.44	75	10.79	33.58	25.73	227	0.21
72	10.86	33.69u	100	10.34	33.70	25.90	211	0.26
82	10.66	33.63	150	9.23	33.91	26.25	178	0.36
92	10.38	-	200	8.52	34.02	26.45	159	0.45
102	10.32	33.71	250	8.34	34.19	26.61	144	0.53
128	10.06	33.85	300	7.95	34.24	26.71	134	0.60
157	9.05	33.92	400	7.01	34.29	26.88	118	0.73
207	8.48	34.04	500	6.32	34.36	27.03	104	0.85
267	8.28	34.22	600	5.80	34.38	27.11	96	0.96
372	7.24	34.27						
492	6.38	34.36						
621	5.70	34.38						

90.53 HORIZON; January 13, 1954; 1815 GCT; 32°35'N, 119°35.5'W; sounding, 1000 fm; wind, 020°, force 4; weather, partly cloudy; sea, very rough; wire angle, 11°.

0	13.81	33.31	0	13.81	33.31	24.94	302	0.00
10	13.78	33.32	10	13.78	33.32	24.96	300	0.03
25	13.78	33.30	20	13.79	33.32	24.95	301	0.06
50	12.96	33.35	30	13.72	33.30	24.95	301	0.09
60	11.18	33.18	50	12.96	33.35	25.14	283	0.15
71	10.03	33.41	75	9.97	33.42	25.75	225	0.21
81	9.90	33.43	100	9.53	33.58	25.94	207	0.27
101	9.50	33.59	150	8.90	33.91	26.30	173	0.36
126	9.06	33.79	200	8.22	34.09	26.55	149	0.45
156	8.68	33.94	250	7.75	34.18	26.69	136	0.52
205	8.16	34.10	300	7.38	34.22	26.77	128	0.59
276	7.57	34.20	400	6.78	34.28	26.90	116	0.72
379	6.90	34.26	500	6.20	34.34	27.03	104	0.83
509	6.15	34.34	600	5.58	34.36	27.12	95	0.94
692	5.08	34.37	700	5.05	34.37	27.19	89	1.04
916	4.20	34.49	800	4.60	34.44	27.30	78	1.13
1220	3.80	34.52	1000	4.04	34.51	27.41	68	1.29

90.70 HORIZON; January 13, 1954; 0817 GCT; 32°04'N, 120°39.5'W; sounding, 2100 fm; wind, 280°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

0	14.02	33.21	0	14.02	33.21	24.82	314	0.00
10	14.02	33.17	10	14.02	33.17	24.79	317	0.03
30	13.92	33.15	20	13.98	33.16	24.79	317	0.06
55	12.52	33.12	30	13.92	33.15	24.80	316	0.10
69	10.78	33.02	50	13.02	33.13	24.96	300	0.16
78	10.46	33.04	75	10.58	33.03	25.34	264	0.22
93	9.64	33.24	100	9.56	33.34	25.75	225	0.29
118	9.40	33.57	150	8.73	33.81	26.25	178	0.39
151	8.70	33.82	200	8.00	34.00	26.51	153	0.48
175	8.30	33.94	250	7.59	34.10	26.65	140	0.55
234	7.72	34.07	300	7.20	34.18	26.77	128	0.62
316	7.06	34.19	400	6.12	34.20	26.93	113	0.75
430	5.90	34.20	500	5.56	34.24	27.03	104	0.86
581	5.22	34.34	600	5.15	34.36	27.17	91	0.96
785	4.52	34.48	700	4.80	34.44	27.28	80	1.06
1032	3.80	34.52	800	4.48	34.48	27.34	74	1.14
1359	3.10	34.56	1000	3.88	34.52	27.44	65	1.30

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 cm^3/g$	dyn. m
HORIZON; January 12, 1954; 2139 GCT; 31°23.5'N, 122°00'W; sounding, 2300 fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 26°.										90.90
0	13.41	33.15		0	13.41	33.15		24.90	306	0.00
9	13.38	33.14		10	13.36	33.14		24.90	306	0.03
29	13.44	33.19		20	13.39	33.18		24.93	303	0.06
52	13.45	33.15		30	13.45	33.19		24.92	304	0.09
65	12.51	33.04		50	13.47	33.16		24.90	306	0.15
73	12.31	33.12		75	12.20	33.12		25.11	286	0.23
87	10.79	32.97		100	10.13	33.12		25.48	251	0.30
110	9.76	33.36		150	8.74	33.69		26.15	187	0.40
140	8.96	33.65		200	8.10	33.93		26.44	160	0.49
162	8.54	33.75		250	7.37	34.04		26.63	142	0.57
215	7.92	33.97		300	6.77	34.10		26.76	129	0.64
289	6.88	34.09		400	6.03	34.14		26.89	117	0.77
392	6.09	34.13		500	5.52	34.27		27.06	101	0.88
531	5.40	34.29		600	5.18	34.32		27.14	93	0.99
721	4.77	34.36		700	4.85	34.35		27.20	88	1.08
953	3.86	34.47		800	4.44	34.39		27.28	80	1.18
1270	3.15	34.61		1000	3.74	34.49		27.43	66	1.34
HORIZON; January 12, 1954; 1053 GCT; 30°45'N, 123°15'W; sounding, 2000 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 35°.										90.110
0	15.29	33.19		0	15.29	33.19		24.54	340	0.00
9	15.26	33.18		10	15.26	33.18		24.53	341	0.03
27	15.28	33.21		20	15.26	33.21		24.56	339	0.07
47	15.28	33.19		30	15.28	33.21		24.55	340	0.10
59	15.30	33.19		50	15.28	33.19		24.54	340	0.17
67	15.29	33.19		75	15.30	33.29		24.61	334	0.26
79	15.30	33.32		100	13.41	33.18		24.92	304	0.34
98	13.55	-		150	10.35	33.31		25.60	240	0.47
125	11.79	33.13		200	8.68	33.79		26.24	179	0.58
143	10.73	33.22		250	8.24	34.02		26.49	155	0.66
183	8.89	33.68		300	7.76	34.14		26.66	139	0.74
236	8.39	33.96		400	6.66	34.18		26.84	122	0.88
304	7.70	34.14		500	6.10	34.32		27.02	105	1.00
402	6.63	34.18		600	5.60	34.34		27.10	97	1.10
533	-	34.33		700	5.16	34.34		27.16	92	1.21
705	5.14	34.34		800	4.77	34.38		27.23	85	1.30
963	4.20	34.46		1000	(4.07)	(34.47)		(27.38)	(71)	(1.48)
N. B. SCOFIELD; January 22, 1954; 1905 GCT; 25°59'N, 132°00'W; sounding, 950+ fm; wind, 040°, force 1; weather, partly cloudy; sea, very rough; wire angle, 05°.										92.245 (14)
0	18.40	34.49	5.18	0	18.40	34.49	5.18	24.80	316	0.00
118	17.48	34.45	5.30	10	(18.35)	(34.48)	(5.18)	(24.81)	(315)	(0.03)
127	17.10	34.43	5.27	20	(18.30)	(34.47)	(5.18)	(24.82)	(314)	(0.06)
137	17.06	34.45	5.18	30	(18.24)	(34.47)	(5.19)	(24.83)	(313)	(0.09)
147	17.34	34.58	5.10	50	(18.13)	(34.46)	(5.22)	(24.85)	(311)	(0.16)
156	16.74	34.50	5.08	75	(18.07)	(34.45)	(5.25)	(24.85)	(311)	(0.24)
166	15.53	34.24	5.06	100	(18.02)	(34.45)	(5.27)	(24.86)	(310)	(0.31)
176	14.74	34.26	5.01	150	17.50	34.65	5.07	25.15	283	(0.46)
195	13.22	34.02	4.91	200	12.90	33.99	4.87	25.65	235	(0.59)
243	10.41	33.91	4.58	250	10.19	33.92	4.47	26.10	192	(0.70)
292	9.02	34.04	3.86	300	8.89	34.04	3.82	26.40	164	(0.80)
389	7.31	34.04	3.52	400	7.15	34.05	3.51	26.67	138	(0.95)
487	6.18	34.21	1.29	500	6.08	34.24	1.05	26.96	110	(1.08)
584	5.68	34.34	0.51	600	5.59	34.35	0.50	27.11	96	(1.19)
781	4.70	34.45	0.50	700	5.06	34.41	0.50	27.22	86	(1.29)
979	4.05	34.56	0.66	800	4.64	34.46	0.50	27.31	77	(1.38)
				1000	(3.99)	(34.57)	(0.68)	(27.47)	(62)	(1.54)

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

93.30 HORIZON; January 14, 1954; 1511 GCT; 32°49.5'N, 117°31.5'W; sounding, 415 fm; wind, 140°, force 2; weather, clear; sea, smooth; wire angle, 00°.

0	14.34	33.38	0	14.34	33.38	24.89	307	0.00
10	14.32	33.39	10	14.32	33.39	24.90	306	0.03
30	14.33	33.38	20	14.32	33.38	24.89	307	0.06
41	14.28	33.40	30	14.33	33.38	24.89	307	0.09
51	13.14	33.30	50	13.35	33.31	25.04	293	0.15
61	11.93	33.31	75	11.10	33.40	25.53	246	0.22
72	11.24	33.38	100	10.40	33.64	25.84	217	0.28
82	10.84	33.45	150	9.38	33.89	26.21	182	0.38
92	10.66	-	200	8.56	34.02	26.44	160	0.47
102	10.38	33.66	250	8.20	34.13	26.59	146	0.54
127	10.12	33.82	300	7.68	34.16	26.68	137	0.62
158	9.17	33.91	400	6.92	34.19	26.81	125	0.75
207	8.50	34.04	500	6.53	34.28	26.94	112	0.88
267	8.06	34.15	600	5.80	34.36	27.09	98	0.99
373	7.04	34.17						
494	6.56	34.28						
621	5.59	34.38						

93.50 HORIZON; January 15, 1954; 0127 GCT; 32°10'N, 118°56'W; sounding, 850 fm; wind, 290°, force 3; weather, partly cloudy; sea, slight; wire angle, 00°.

0	13.88	33.39	0	13.88	33.39	24.99	298	0.00
10	13.84	33.38	10	13.84	33.38	24.99	298	0.03
31	13.74	33.40	20	13.80	33.39	25.01	296	0.06
41	13.04	33.37	30	13.76	33.40	25.02	295	0.09
51	11.27	33.36	50	11.40	33.36	25.45	254	0.14
62	10.29	33.49	75	9.78	33.58	25.90	211	0.20
72	9.88	33.56	100	9.28	33.76	26.12	190	0.25
82	9.59	33.63	150	8.48	33.98	26.42	162	0.34
92	9.38	-	200	8.02	34.12	26.60	145	0.42
103	9.22	33.78	250	7.50	34.14	26.69	136	0.49
128	8.78	33.92	300	7.16	34.20	26.79	127	0.56
158	8.38	34.00	400	6.50	34.29	26.95	111	0.68
208	7.95	34.13	500	5.82	34.27	27.02	105	0.80
268	7.34	34.15	600	5.41	34.36	27.14	93	0.90
373	6.74	34.30						
495	5.84	34.27						
622	5.34	34.39						

97.40 HORIZON; January 15, 1954; 2114 GCT; 31°54.5'N, 117°52'W; sounding, 1090 fm; wind, 360°, force 2; weather, partly cloudy; sea, slight; wire angle, 03°.

0	14.65	33.43	0	14.65	33.43	24.86	310	0.00
10	14.52	33.43	10	14.52	33.43	24.89	307	0.03
31	14.47	33.39	20	14.50	33.41	24.87	309	0.06
41	13.92	33.38	30	14.47	33.39	24.87	309	0.09
51	12.65	33.28	50	12.80	33.29	25.13	284	0.15
61	11.76	33.26	75	11.02	33.30	25.47	252	0.22
72	11.19	33.28	100	10.03	33.55	25.84	217	0.28
82	10.67	33.40	150	9.76	34.07	26.29	174	0.38
92	10.23	-	200	9.77	34.38	26.53	151	0.46
103	9.99	33.58	250	9.22	34.33	26.58	146	0.54
128	9.58	33.86	300	8.42	34.27	26.66	139	0.61
158	9.79	34.15	400	7.06	34.24	26.83	123	0.75
208	9.72	34.38	500	6.13	34.28	26.99	108	0.87
268	8.94	34.31	600	5.47	34.35	27.13	94	0.98
373	7.35	34.23						
494	6.18	34.28						
620	5.37	34.36						

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5}cm^3/g$	dyn. m

HORIZON; January 15, 1954; 1109 GCT; 31°14.5'N, 119°07.5'W; sounding, 1850 fm; wind, 270°, force 2; weather, partly cloudy; sea, moderate; wire angle, 20°. 97.60

0	14.29	33.20	0	14.29	33.20		24.76	320	0.00
10	14.24	33.23	10	14.24	33.23		24.79	317	0.03
29	14.10	33.22	20	14.17	33.23		24.81	315	0.06
39	13.48	33.14	30	14.07	33.22		24.82	314	0.10
48	12.86	33.19	50	12.72	33.21		25.09	289	0.15
58	12.16	33.27	75	10.70	33.26		25.50	249	0.22
68	11.00	33.18	100	9.08	33.54		25.98	204	0.28
77	10.62	33.32	150	8.60	33.80		26.26	177	0.38
86	9.90	-	200	8.16	34.03		26.51	153	0.46
95	9.26	33.49	250	7.48	34.04		26.62	143	0.54
119	8.90	33.68	300	6.90	34.09		26.74	131	0.61
146	8.63	33.78	400	6.22	34.24		26.95	111	0.73
191	8.28	34.03	500	5.75	34.35		27.09	98	0.84
245	7.54	34.04							
339	6.60	34.13							
453	5.96	34.31							
577	5.46	34.40							

N. B. SCOFIELD; January 26, 1954; 1844 GCT; 22°06'N, 137°04'W; sounding, 950+ fm; wind, 080°, force 3; weather, drizzle; sea, moderate; wire angle, 14°. 97.335 (17)

0	21.05	34.88	5.05	0	21.05	34.88	5.05	24.41	353	0.00
88	20.36	35.04	5.10	10	(21.00)	(34.90)	(5.05)	(24.44)	(350)	(0.04)
116	18.63	34.83	5.11	20	(20.94)	(34.93)	(5.06)	(24.45)	(349)	(0.07)
136	18.27	-	4.98	30	(20.88)	(34.95)	(5.06)	(24.50)	(344)	(0.10)
155	18.22	34.81	4.92	50	(20.74)	(34.99)	(5.07)	(24.58)	(337)	(0.17)
174	17.83	34.98u	4.86	75	(20.54)	(35.03)	(5.09)	(24.67)	(328)	(0.26)
193	17.04	34.69	4.68	100	19.82	34.99	5.11	24.82	314	(0.34)
212	15.15	34.34	4.66	150	18.70	34.83	4.93	24.99	298	(0.49)
221	13.88	34.16	4.61	200	16.50	34.59	4.65	25.34	264	(0.64)
231	13.30	34.13	4.55	250	12.13	34.07	4.51	25.86	215	(0.76)
240	12.88	34.14	4.58	300	9.62	34.06	3.85	26.30	173	(0.86)
260	11.42	34.00	4.28	400	7.89	34.24	1.20	26.71	134	(1.02)
288	9.97	34.03	4.06	500	6.79	34.33	0.43	26.94	112	(1.15)
382	8.16	34.22	1.68	600	6.07	34.42	0.46	27.11	96	(1.26)
476	7.01	34.31	0.42	700	5.47	34.44	0.47	27.20	88	(1.36)
573	6.25	34.41	0.47	800	4.94	34.46	0.48	27.28	80	(1.45)
763	5.12	34.45	0.48	1000	(4.10)	(34.53)	(0.72)	(27.42)	(67)	(1.62)
958	4.27	34.51	0.64							

HORIZON; January 16, 1954; 0721 GCT; 31°42'N, 116°43.5'W; sounding, 55 fm; wind, 360°, force 1; weather, partly cloudy; sea, calm; wire angle, 02°. 100.29

0	13.73	33.37	0	13.73	33.37		25.00	297	0.00
15	13.90	33.37	10	13.91	33.37		24.97	300	0.03
26	13.52	-	20	13.72	33.37		25.01	296	0.06
36	13.45	33.39	30	13.49	33.39		25.07	290	0.09
46	12.74	33.38	50	12.68	33.40		25.24	274	0.15
52	12.68	33.40	75	11.76	33.48		25.47	252	0.21
57	12.62	33.37							
62	12.30	33.40							
67	12.15	-							
72	11.84	33.48							
82	11.64	33.41							

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

100.50 HORIZON; January 16, 1954; 1754 GCT; 30°59'N, 118°10'W; sounding, 970 fm; wind, 360°, force 4; weather, partly cloudy; sea, moderate; wire angle, 22°.

0	13.67	33.43	0	13.67	33.43	25.06	291	0.00
10	13.62	33.43	10	13.62	33.43	25.07	290	0.03
24	13.65	33.45	20	13.64	33.45	25.08	289	0.06
48	11.46	33.36	30	13.32	33.44	25.14	283	0.09
57	10.50	33.24	50	11.22	33.34	25.47	252	0.14
67	9.76	33.26	75	9.43	33.47	25.87	214	0.20
76	9.42	33.51	100	9.28	33.71	26.08	194	0.25
96	9.31	33.69	150	8.50	33.87	26.33	170	0.34
119	9.01	-	200	8.00	34.08	26.57	148	0.42
148	8.52	33.86	250	7.54	34.10	26.66	139	0.50
195	8.04	34.07	300	7.20	34.16	26.75	130	0.57
261	7.48	34.11	400	6.48	34.24	26.91	115	0.69
360	6.80	34.23	500	5.80	34.27	27.02	105	0.81
482	5.92	34.26	600	5.34	34.35	27.14	93	0.92
658	5.09	34.37	700	4.90	34.39	27.23	85	1.01
875	4.27	34.43	800	4.50	34.41	27.29	79	1.10
1177	3.56	34.53	1000	3.92	34.48	27.40	69	1.27

100.70 HORIZON; January 17, 1954; 0409 GCT; 30°19.5'N, 119°27.5'W; sounding, 1410 fm; wind, 320°, force 4; weather, cloudy; sea, slight; wire angle, 05°.

0	14.59	33.30	0	14.59	33.30	24.77	319	0.00
10	14.60	33.22	10	14.60	33.22	24.71	324	0.03
25	14.44	33.26	20	14.49	33.25	24.75	320	0.06
51	14.22	33.21	30	14.41	33.25	24.77	319	0.10
62	14.00	-	50	14.24	33.21	24.78	318	0.16
72	13.08	33.13	75	12.80	33.11	24.99	298	0.24
82	12.12	33.03	100	11.00	33.08	25.30	268	0.31
102	10.92	33.10	150	9.40	33.51	25.91	210	0.43
127	9.98	-	200	8.52	33.86	26.32	171	0.53
157	9.27	33.56	250	7.67	34.03	26.58	146	0.61
207	8.41	33.89	300	7.24	34.18	26.76	129	0.68
277	7.38	34.11	400	6.66	34.27	26.91	115	0.81
382	6.83	34.27	500	5.81	34.27	27.02	105	0.92
512	5.74	34.27	600	5.31	34.37	27.16	92	1.03
697	4.92	34.46	700	4.90	34.46	27.28	80	1.12
923	4.18	34.56	800	4.55	34.52	27.37	72	1.20
1231	3.42	34.60	1000	3.97	34.58	27.48	61	1.36
			1200	3.48	34.60	27.54	56	1.49

100.90 HORIZON; January 17, 1954; 1502 GCT; 29°34'N, 120°54'W; sounding, 2250 fm; wind, 240°, force 2; weather, partly cloudy; sea, smooth; wire angle, 07°.

0	15.22	33.30	0	15.22	33.30	24.64	331	0.00
10	15.20	33.31	10	15.20	33.31	24.65	330	0.03
25	15.22	33.31	20	15.21	33.31	24.64	331	0.07
51	15.22	33.30	30	15.23	33.31	24.64	331	0.10
61	15.20	33.30	50	15.22	33.30	24.64	331	0.17
72	15.02	33.27	75	14.97	33.27	24.67	328	0.25
82	14.70	33.30	100	13.04	33.15	24.97	300	0.33
102	12.93	33.15	150	9.94	33.24	25.61	239	0.46
127	11.52	-	200	8.15	33.84	26.36	167	0.57
158	9.62	33.33	250	7.97	34.08	26.58	146	0.65
207	8.54	33.92	300	7.42	34.12	26.69	136	0.72
276	7.69	34.11	400	6.48	34.15	26.84	122	0.85
380	6.65	34.14	500	5.72	34.24	27.01	106	0.97
509	5.68	34.25	600	5.30	34.34	27.14	93	1.08
693	4.98	34.41	700	4.95	34.41	27.24	84	1.18
918	4.17	34.51	800	4.57	34.47	27.33	75	1.26
1226	3.38	34.58	1000	3.92	34.53	27.44	65	1.42

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m
N. B. SCOFIELD; January 6, 1954; 2236 GCT; 28°30'N, 123°00'W; sounding, 1000+ fm; wind, 290°, force 3; weather, cloudy; sea, rough; wire angle, 25°.										100.125 (1)
0	17.63	33.74	5.22	0	17.63	33.74	5.22	24.42	352	0.00
23	17.58	-	5.44	10	17.61	33.75	5.27	24.43	351	0.04
46	17.57	33.78	5.44	20	17.59	33.77	5.43	24.45	349	0.07
68	17.52	33.75	5.42	30	17.58	33.77	5.45	24.45	349	0.11
90	17.45	-	5.39	50	17.55	33.77	5.44	24.46	348	0.18
112	15.89	33.58	5.62	75	17.50	33.74	5.42	24.46	348	0.26
203	10.20	33.75	3.91	100	17.42	33.76	5.45	24.48	346	0.35
382	6.70	34.09	1.95	150	13.50	33.60	5.09	25.23	275	0.51
566	5.61	34.33	0.48	200	10.36	33.74	4.00	25.93	208	0.63
752	4.74	34.42	0.40	250	8.83	33.87	3.30	26.29	175	0.73
950	4.16	34.52	0.55	300	7.70	33.98	2.77	26.54	150	0.81
				400	6.55	34.12	1.77	26.81	125	0.95
				500	5.96	34.26	0.78	27.00	107	1.08
				600	5.44	34.34	0.43	27.12	95	1.18
				700	4.97	34.39	0.40	27.22	86	1.28
				800	4.59	34.44	0.41	27.30	78	1.37
				1000	(4.03)	(34.54)	(0.62)	(27.44)	(65)	(1.53)
N. B. SCOFIELD; January 23, 1954; 1914 GCT; 24°03'N, 132°04'W; sounding, 950+ fm; wind, 070°, force 3; weather, overcast; sea, rough; wire angle, 00°.										100.265 (15)
0	19.02	34.75	5.03	0	19.02	34.75	5.03	24.84	312	0.00
70	19.26	34.90	5.01	10	(19.01)	(34.75)	(5.03)	(24.85)	(311)	(0.03)
79	19.30	34.93	5.14	20	(19.00)	(34.75)	(5.03)	(24.85)	(311)	(0.06)
89	19.25	34.88	5.20	30	(19.00)	(34.75)	(5.03)	(24.85)	(311)	(0.09)
98	19.26	34.85	5.18	50	(19.00)	(34.75)	(5.03)	(24.85)	(311)	(0.16)
108	19.24	34.86	5.18	75	19.30	34.93	5.06	24.91	305	(0.23)
118	18.04	34.60	5.20	100	19.25	34.85	5.16	24.86	310	(0.31)
127	17.49	34.54	5.22	150	17.04	34.48	5.11	25.12	285	(0.46)
157	16.90	-	5.04	200	13.20	33.99	4.83	25.59	241	(0.60)
176	15.22	34.29	4.97	250	9.98	33.93	4.06	26.15	188	(0.71)
197	13.50	34.02	4.85	300	8.82	34.06	3.74	26.43	161	(0.80)
215	12.00	33.91	4.69	400	6.82	34.21	2.38	26.84	122	(0.94)
244	10.14	33.91	4.15	500	5.79	34.25	1.04	27.01	106	(1.06)
293	8.99	34.04	3.80	600	5.22	34.30	0.55	27.11	96	(1.17)
390	6.98	34.20	2.53	700	4.87	34.38	0.58	27.22	86	(1.27)
586	5.28	34.29	0.54	800	4.58	(34.46)	0.64	(27.32)	(76)	(1.36)
783	4.64	34.44	0.63	1000	(4.04)		(0.77)			
992	4.06	-	0.78							
N. B. SCOFIELD; January 12, 1954; 1855 GCT; 26°07'N, 127°00'W; sounding, 950+ fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 14°.										102.190 (7)
0	17.98	34.18	5.43	0	17.98	34.18	5.43	24.67	328	0.00
77	17.96	34.10	5.44	10	(17.98)	(34.18)	(5.43)	(24.67)	(328)	(0.03)
88	17.92	34.10	5.44	20	(17.98)	(34.18)	(5.43)	(24.66)	(329)	(0.07)
97	16.84	34.09	5.58	30	(17.98)	(34.18)	(5.43)	(24.66)	(329)	(0.10)
107	16.98	34.22	5.45	50	(17.98)	(34.15)	(5.43)	(24.64)	(331)	(0.16)
116	16.86	34.22	5.35	75	(17.96)	(34.10)	(5.44)	(24.62)	(333)	(0.25)
126	16.69	34.23	5.30	100	16.88	34.13	5.56	24.90	306	(0.33)
135	16.34	34.25	5.20	150	15.66	34.17	5.18	25.21	277	(0.48)
145	15.96	34.20	5.21	200	11.76	33.96	4.89	25.85	216	(0.60)
193	12.06	33.96	4.94	250	9.64	33.96	4.49	26.23	180	(0.70)
288	8.56	33.99	4.03	300	8.27	34.01	3.83	26.47	157	(0.79)
384	7.10	34.11	2.25	400	6.97	34.14	2.00	26.77	129	(0.94)
479	6.44	34.25	1.07	500	6.26	34.26	0.90	26.95	111	(1.06)
566	5.73	34.29	0.55	600	5.54		0.50			
759	4.88	-	0.41	700	5.11		0.42			
966	4.08	-	0.62	800	4.71		0.42			
				1000	(3.95)		(0.70)			

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

103.30 HORIZON; January 22, 1954; 0848 GCT; 31°05.5'N, 116°26'W; sounding, 48 fm; wind, 310°, force 4; weather, clear; sea, moderate; wire angle, 12°.

0	13.59	33.35	0	13.59	33.35	25.02	295	0.00
15	13.59	33.33	10	13.61	33.33	25.00	297	0.03
25	13.51	33.33	20	13.58	33.33	25.00	297	0.06
35	12.28	33.36	30	12.79	33.34	25.17	280	0.09
40	12.08	33.38	50	11.88	33.40	25.39	260	0.14
45	11.91	33.42	75	(11.00)	(33.50)	(25.63)	(237)	(0.20)
50	11.88	33.40						
55	11.86	33.42						
60	11.84	33.40						
70	11.31	33.46						

103.40 HORIZON; January 21, 1954; 0416 GCT; 30°45'N, 117°06'W; sounding, 1000 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	15.03	33.41	0	15.03	33.41	24.76	320	0.00
10	15.02	33.42	10	15.02	33.42	24.77	319	0.03
30	15.00	33.42	20	15.03	33.42	24.77	319	0.06
45	14.43	33.36	30	15.00	33.42	24.78	318	0.10
61	11.80	33.12	50	13.63	33.28	24.96	300	0.16
71	11.22	33.20	75	11.08	33.24	25.41	258	0.23
81	10.88	33.29	100	10.38	33.54	25.77	223	0.29
97	10.42	33.52	150	9.02	33.85	26.24	179	0.39
107	10.30	33.57	200	9.18	34.12	26.42	162	0.48
122	9.74	33.69	250	8.34	34.19	26.61	144	0.56
152	9.02	33.86	300	7.73	34.24	26.74	131	0.63
182	9.30	34.07	400	7.15	34.33	26.89	117	0.76
242	8.46	34.18	500	6.20	34.34	27.03	104	0.87
312	7.62	34.25	600	5.55	34.35	27.12	95	0.98
431	6.90	34.34	700	5.11	34.39	27.20	88	1.08
571	5.70	34.34						
713	5.06	34.40						

103.60 HORIZON; January 20, 1954; 1852 GCT; 30°01'N, 118°25'W; sounding, 2000 fm; wind, 290°, force 6; weather, cloudy; sea, high; wire angle, 32°.

0	14.56	33.32	0	14.56	33.32	24.79	317	0.00
9	14.54	33.37	10	14.55	33.37	24.83	313	0.03
26	14.54	-	20	14.55	33.34	24.81	315	0.06
40	14.54	33.31	30	14.55	33.32	24.79	317	0.09
52	14.53	33.31	50	14.55	33.31	24.79	317	0.16
61	13.95	33.24	75	11.32	33.20	25.34	264	0.23
70	11.89	33.19	100	11.12	33.69	25.75	225	0.29
82	11.20	33.33	150	10.57	34.14	26.20	183	0.40
91	11.27	-	200	10.04	34.24	26.37	166	0.48
104	11.07	33.77	250	9.43	34.33	26.54	150	0.57
129	11.02	34.02	300	8.72	34.34	26.67	138	0.64
155	10.63	34.16						
207	9.99	34.25						
269	9.21	34.34						
376	7.98	34.34						

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; January 19, 1954; 2149 GCT; 30°20.5'N, 116°22'W; sounding, 1000 fm; wind, 220°, force 6; weather, cloudy; sea, slight; wire angle, 34°. 107.35

0	14.67	33.48	0	14.67	33.48	24.89	307	0.00
9	14.58	33.40	10	14.56	33.39	24.85	311	0.03
25	14.21	33.29	20	14.32	33.31	24.84	312	0.06
33	14.21	33.38	30	14.20	33.34	24.88	308	0.09
42	14.25	33.37	50	14.21	33.45	24.97	300	0.15
50	14.21	33.45	75	11.70	33.25	25.31	267	0.22
58	13.31	33.35	100	10.28	33.44	25.71	229	0.29
66	12.50	33.28	150	9.11	33.81	26.19	184	0.39
74	11.81	-	200	9.57	34.25	26.46	158	0.48
81	11.08	33.25	250	9.21	34.34	26.59	146	0.56
99	10.30	33.42	300	8.70	34.35	26.68	137	0.63
121	9.94	33.67	400	7.51	34.36	26.86	120	0.77
154	9.09	33.84	500	(6.25)	(34.40)	(27.07)	(100)	(0.88)
191	9.58	34.21						
266	9.05	34.35						
363	8.00	34.35						
474	6.54	34.39						

HORIZON; January 20, 1954; 0703 GCT; 29°48'N, 117°23'W; sounding, 1500 fm; wind, 220°, force 6; weather, partly cloudy; sea, very rough; wire angle, 22°. 107.50

0	14.46	33.41	0	14.46	33.41	24.88	308	0.00
9	14.44	33.40	10	14.43	33.40	24.88	308	0.03
28	14.46	33.36	20	14.44	33.37	24.86	310	0.06
43	14.40	33.39	30	14.46	33.36	24.84	312	0.09
57	12.58	33.22	50	13.73	33.34	24.98	299	0.15
67	11.58	33.18	75	10.98	33.33	25.50	249	0.22
76	10.92	33.34	100	10.05	33.46	25.76	224	0.28
90	10.44	33.40	150	9.01	33.81	26.21	182	0.38
99	10.08	-	200	8.91	34.12	26.46	158	0.47
113	9.86	33.56	250	8.79	34.29	26.62	143	0.55
140	9.17	33.75	300	8.26	34.31	26.71	134	0.62
168	8.86	33.93	400	7.12	(34.26)	(26.84)	(122)	(0.75)
222	8.92	34.23	500	6.25				
286	8.42	34.31						
396	7.18	34.26						
528	6.06	-						

N. B. SCOFIELD; January 24, 1954; 1906, 1932 GCT; 22°05'N, 132°03'W; sounding, 950+ fm; wind, 070°, force 2; weather, cloudy; sea, moderate; wire angle, 10°, 14°. 108.280 (16)

0	19.22	34.74	5.25	0	19.22	34.74	5.25	24.79	317	0.00
79	19.32	34.82	5.23	10	(19.24)	(34.74)	(5.25)	(24.79)	(317)	(0.03)
118	18.46	34.71	5.17	20	(19.26)	(34.76)	(5.25)	(24.79)	(317)	(0.06)
128	18.19	34.88u	5.06	30	(19.28)	(34.78)	(5.25)	(24.80)	(316)	(0.10)
138	18.17	34.79u	5.02	50	(19.30)	(34.79)	(5.25)	(24.80)	(316)	(0.16)
177	17.34	34.80	4.87	75	(19.33)	(34.81)	(5.25)	(24.81)	(315)	(0.24)
197	15.56	34.68	4.84	100	19.32	34.82	5.21	24.82	314	(0.32)
				150	18.10	34.80	4.98	25.10	287	(0.47)
208	14.36	34.36	4.81	200	15.20	34.59	4.84	25.63	237	(0.60)
227	12.16	34.00	4.64	250	10.26	34.01	3.83	26.15	187	(0.71)
246	10.39	33.98	3.96	300	8.96	34.16	2.85	26.49	155	(0.80)
265	9.90	34.09	3.49	400	7.54	34.34	2.17	26.84	122	(0.94)
282	9.41	34.14	3.03	500	6.47	34.35	0.52	27.00	107	(1.06)
330	8.36	34.20	2.65	600	5.70	34.40	0.46	27.14	93	(1.17)
377	7.78	34.34	1.42	700	5.33	34.48	0.51	27.25	83	(1.27)
471	6.82	34.34	0.65	800	4.96	34.51	0.58	27.32	76	(1.36)
566	5.84	34.38	0.42	1000	(4.23)	(34.52)	(0.73)	(27.40)	(69)	(1.52)
760	5.10	34.51	0.55							
958	4.38	34.52	0.70							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
110.33	HORIZON; January 19, 1954; 1504 GCT; 29°51'N, 115°51.5'W; sounding, 35 fm; wind, 240°, force 4; weather, drizzle; sea, moderate; wire angle, 00°.									
0	14.68	33.41		0	14.68	33.41		24.84	312	0.00
10	14.63	33.47		10	14.63	33.47		24.89	307	0.03
15	14.55	33.47		20	14.50	33.48		24.93	303	0.06
20	14.50	33.48		30	13.81	33.36		24.98	299	0.09
26	14.16	33.41		50	12.59	33.44		25.29	269	0.15
31	13.76	33.35								
36	13.65	33.35								
41	13.24	33.36								
51	12.52	33.45								
110.40	HORIZON; January 19, 1954; 1034 GCT; 29°37'N, 116°18.5'W; sounding, 1400 fm; wind, 240°, force 2; weather, rain; sea, slight; wire angle, 16°.									
0	15.57	33.48		0	15.57	33.48		24.70	325	0.00
9	15.56	33.45		10	15.57	33.45		24.67	328	0.03
25	15.56	33.48		20	15.57	33.47		24.69	326	0.06
50	15.54	33.48		30	15.55	33.48		24.70	325	0.10
60	15.54	33.44		50	15.54	33.48		24.70	325	0.16
70	15.06	33.35		75	14.25	33.28		24.83	313	0.24
81	12.98	33.22		100	12.45	33.31		25.21	277	0.32
101	12.42	33.32		150	9.76	33.88		26.14	188	0.44
124	10.81	-		200	9.90	34.26		26.41	163	0.52
153	9.76	-		250	9.33	34.38		26.60	145	0.60
202	9.89	34.27		300	8.66	34.39		26.71	134	0.68
271	8.99	34.40		400	7.62	34.35		26.84	122	0.81
373	7.96	-		500	6.52	34.34		26.99	108	0.93
498	6.54	34.34		600	5.81	34.38		27.11	96	1.04
680	5.36	34.40		700	5.27	34.40		27.19	89	1.14
901	4.34	34.43		800	4.79	34.41		27.25	83	1.24
1207	3.42	34.51		1000	4.02	34.45		27.37	72	1.41
110.60	HORIZON; January 18-19, 1954; 2342, 0008 GCT; 28°56'N, 117°39.5'W; sounding, 2000 fm; wind, 320°, force 1; weather, cloudy; sea, moderate; wire angle, 12°, 10°.									
0	15.47	33.44		0	15.47	33.44		24.69	326	0.00
10	15.30	-		10	15.30	33.43		24.72	323	0.03
24	15.24	33.42		20	15.25	33.42		24.72	323	0.06
50	15.24	33.53		30	15.24	33.44		24.74	321	0.10
60	14.62	33.40		50	15.24	33.53		24.81	315	0.16
70	12.53	33.12		75	12.41	33.33		25.24	274	0.24
80	12.24	33.39		100	11.06	33.45		25.58	242	0.30
101	11.00	33.46		150	9.04	33.80		26.19	184	0.41
125	9.60	-		200	8.95	34.06		26.41	163	0.50
154	9.02	33.82		250	8.53	34.18		26.57	148	0.58
202	8.96	34.07		300	7.80	34.20		26.70	135	0.65
				400	6.89	34.22		26.84	122	0.78
268	8.32	34.20		500	6.47	34.37		27.02	105	0.90
371	7.04	34.20		600	5.77	34.42		27.14	93	1.01
499	6.48	34.37		700	5.22	34.46		27.24	84	1.11
680	5.32	34.45		800	4.79	34.49		27.32	76	1.19
904	4.39	34.51		1000	4.08	34.52		27.42	67	1.36
1213	3.46	34.52								

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
HORIZON; January 18, 1954; 1400 GCT; 28°19.5'N, 118°54'W; sounding, 1650 fm; wind, 310°, force 2; weather, cloudy; sea, slight; wire angle, 07°.										110.80
0	14.62	33.23		0	14.62	33.23		24.71	324	0.00
10	14.62	33.29		10	14.62	33.29		24.76	319	0.03
25	14.63	33.22		20	14.62	33.23		24.71	324	0.06
51	14.62	33.24		30	14.62	33.22		24.70	325	0.10
61	14.45	33.27		50	14.62	33.24		24.72	323	0.16
71	14.20	33.22		75	13.82	33.20		24.86	310	0.24
82	12.88	33.18		100	11.44	33.16		25.29	269	0.32
102	11.37	33.16		150	9.55	33.60		25.96	205	0.44
127	10.60	-		200	8.42	33.96		26.42	162	0.53
157	9.30	33.68		250	7.91	34.10		26.60	145	0.61
206	8.36	33.99		300	7.43	34.13		26.69	136	0.68
275	7.69	34.12		400	6.61	34.16		26.83	123	0.81
379	6.79	34.14		500	5.97	34.34		27.06	101	0.93
508	5.92	34.35		600	5.40	34.39		27.17	91	1.04
692	5.00	34.42		700	4.98	34.42		27.24	84	1.13
917	4.29	34.48		800	4.65	34.45		27.30	78	1.22
1223	3.41	34.57		1000	4.04	34.50		27.41	68	1.38
				1200	3.45	34.56		27.51	58	1.53
HORIZON; January 18, 1954; 0435 GCT; 27°31'N, 120°05.5'W; sounding, 1650 fm; wind, 090°, force 2; weather, partly cloudy; sea, slight; wire angle, 12°.										110.100
0	16.3	33.44		0	16.3	33.44		24.50	344	0.00
10	16.31	33.45		10	16.31	33.45		24.51	343	0.03
25	16.30	33.40		20	16.30	33.40		24.47	347	0.07
50	16.30	33.40		30	16.30	33.40		24.47	347	0.10
60	16.28	33.40		50	16.30	33.40		24.47	347	0.17
70	16.24	33.44		75	16.28	33.44		24.51	343	0.26
80	16.29	33.42		100	14.57	33.34		24.81	315	0.34
100	14.57	33.34		150	11.01	33.50		25.63	237	0.48
125	12.84	-		200	10.08	33.94		26.13	189	0.59
154	10.90	33.53		250	9.13	34.17		26.47	157	0.68
203	10.02	33.96		300	8.70	34.26		26.61	144	0.76
271	8.92	34.22		400	7.71	34.33		26.81	125	0.90
374	8.13	34.32		500	6.55	34.35		26.99	108	1.02
502	6.54	34.35		600	5.92	34.39		27.10	97	1.13
685	5.44	34.42		700	5.36	34.46		27.23	85	1.23
908	4.46	34.51		800	4.89	34.47		27.29	79	1.32
1214	3.54	34.59		1000	4.15	34.54		27.43	66	1.48
N. B. SCOFIELD; January 7, 1954; 1305 GCT; 26°29'N, 122°45'W; sounding, 1000+ fm; wind, 290°, force 3; weather, clear; sea, slight; wire angle, 07°.										110.140 (2)
0	17.70	33.68	5.48	0	17.70	33.68	5.48	24.36	358	0.00
79	17.78	33.68	5.45	10	(17.72)	(33.68)	(5.48)	(24.35)	(359)	(0.04)
89	17.64	33.68	5.46	20	(17.73)	(33.68)	(5.47)	(24.35)	(359)	(0.07)
99	15.04	33.47a)	5.75	30	(17.75)	(33.68)	(5.46)	(24.34)	(360)	(0.11)
108	14.56	33.45	5.69	50	(17.78)	(33.68)	(5.46)	(24.34)	(360)	(0.18)
118	13.79	33.45	5.48	75	(17.80)	(33.68)	(5.45)	(24.33)	(360)	(0.27)
147	11.54	33.73	4.72	100	15.05	33.47	5.74	24.80	316	(0.36)
172	10.32	33.73	3.81	150	11.39	33.73	4.60	25.74	226	(0.49)
196	9.98	34.00	2.84	200	9.87	34.02	2.79	26.23	180	(0.60)
245	9.08	34.16	2.39	250	9.02	34.17	2.30	26.49	155	(0.68)
391	7.68	34.33	0.76	300	8.54	34.24	2.49	26.62	143	(0.76)
488	6.70	34.36	0.48	400	7.60	34.34	0.72	26.83	123	(0.90)
586	5.94	34.38	0.34	500	6.59	34.36	0.43	26.99	108	(1.02)
781	4.98	34.42	0.37	600	5.86	34.38	0.33	27.10	97	(1.13)
978	4.23	34.52	0.55	700	5.33	34.40	0.33	27.18	90	(1.23)
				800	4.90	34.43	0.37	27.26	82	(1.32)
				1000	(4.15)	(34.53)	(0.57)	(27.42)	(67)	(1.49)

a) Loose bottle cap; value falls on property curve.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
110.205 (6)	N. B. SCOFIELD; January 11, 1954; 1813 GCT; 24°07'N, 127°00'W; sounding, 950+ fm; wind, 020°, force 3; weather, cloudy; sea, rough; wire angle, 10°.									
0	19.12	34.65	5.14	0	19.12	34.65	5.14	24.74	321	0.00
138	16.68	34.12	5.33	10	(19.10)	(34.65)	(5.16)	(24.75)	(320)	(0.03)
148	16.07	34.09	5.26	20	(19.09)	(34.65)	(5.17)	(24.75)	(320)	(0.06)
157	15.46	34.01	5.23	30	(19.08)	(34.64)	(5.20))	(24.75)	(320)	(0.10)
167	14.32	33.89	5.09	50	(19.05)	(34.64)	(5.23)	(24.75)	(320)	(0.16)
177	13.37	33.86	4.95	75	(19.02)	(34.63)	(5.27)	(24.75)	(320)	(0.24)
186	12.78	33.86	4.91	100	(18.98)	(34.62)	(5.32)	(24.76)	(320)	(0.32)
196	11.90	33.86	4.71	150	15.95	34.08	5.23	25.07	290	(0.48)
216	10.84	33.81	4.36	200	11.68	33.85	4.61	25.78	222	(0.61)
244	9.74	33.96	3.46	250	9.68	(33.97)	3.25	(26.23)	(180)	(0.71)
293	9.06	34.74a)	2.22	300	8.97		2.17			
391	7.77	34.61a)	1.58	400	7.66		1.48			
489	6.62	34.56a)	0.59	500	6.51		0.53			
587	5.74	-	0.32	600	5.66		0.33			
782	4.75	34.52a)	0.46	700	5.11		0.39			
982	4.06	34.52a)	0.65	800	4.67		0.47			
				1000	(3.99)		(0.67)			
113.35	CREST; January 20, 1954; 1203 GCT; 29°12'N, 115°39'W; sounding, 750 fm; wind, 250°, force 5; weather, partly cloudy; sea, high; wire angle, 19°.									
0	15.3	33.40		0	15.3	33.40		24.69	326	0.00
10	15.10	33.40		10	15.10	33.40		24.74	321	0.03
29	14.26	33.43		20	14.70	33.41		24.83	313	0.06
44	14.00	33.49		30	14.25	33.43		24.94	302	0.10
53	14.02	33.53		50	14.02	33.52		25.06	291	0.15
63	14.00	33.51		75	13.43	33.51		25.17	280	0.23
73	13.63	33.51		100	11.90	33.66		25.59	240	0.29
83	12.34	33.38		150	10.34	34.01		26.14	188	0.40
97	12.08	33.66		200	9.40	34.13		26.39	164	0.49
106	11.50	33.66		250	9.24	34.26		26.52	152	0.57
130	10.88	33.89		300	8.96	34.34		26.63	142	0.65
158	10.14	34.04		400	7.86	34.38		26.83	123	0.79
209	9.33	34.15		500	6.78	34.36		26.97	110	0.91
271	9.16	34.31		600	6.00	34.37		27.08	99	1.02
379	8.12	34.38								
505	6.74	34.36								
638	5.78	34.38								
113.50	CREST; January 20, 1954; 0504 GCT; 28°42'N, 116°37'W; sounding, 1900 fm; wind, 250°, force 5; weather, rain showers; sea, rough; wire angle, 23°.									
0	16.0	33.43		0	16.0	33.43		24.56	339	0.00
10	15.78	-		10	15.78	33.45		24.63	332	0.03
28	15.82	33.46		20	15.82	33.46		24.63	332	0.07
43	15.82	33.45		30	15.83	33.46		24.62	333	0.10
52	15.82	33.47		50	15.83	33.46		24.62	333	0.17
62	15.81	33.46		75	14.70	33.36		24.79	317	0.25
72	15.29	33.41		100	12.30	33.11		25.09	288	0.32
82	13.76	33.17		150	9.90	33.40		25.74	226	0.46
96	12.64	33.11		200	9.15	33.87		26.23	180	0.56
105	11.90	33.11		250	8.94	34.20		26.52	152	0.64
128	10.94	33.24		300	8.40	34.23		26.63	142	0.72
156	9.02	33.45		400	6.75	34.16		26.81	125	0.86
207	9.12	33.96		500	5.92	34.21		26.96	110	0.98
269	8.86	34.23		600	5.66	34.36		27.11	96	1.09
378	7.00	34.16								
499	5.93	34.21								
631	5.59	34.38								

a) These salinity values are typical of Equatorial Pacific water but appear out of place with the surrounding water mass and hence may be in error. No interpolated values were obtained.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5}cm^3/g$	dyn. m

CREST; January 19, 1954; 1416 GCT; 28°46'N, 114°55'W; sounding, 55 fm; wind, 180°, force 2; weather, rain showers; sea, slight; wire angle, 00°. 117.30

0	15.88	33.64	0	15.88	33.64	24.75	320	0.00
10	15.89	33.63	10	15.89	33.63	24.74	321	0.03
15	15.88	33.63	20	15.90	33.62	24.73	322	0.06
20	15.90	33.62	30	15.89	33.64	24.75	320	0.10
25	15.89	33.63	50	15.90	33.64	24.75	320	0.16
30	15.89	33.64	75	14.90	33.60	24.94	302	0.24
36	15.90	33.62						
41	15.88	33.64						
56	15.88	33.64						
67	15.50	33.62						
82	14.04	33.58						

CREST; January 19, 1954; 1933 GCT; 28°28.5'N, 115°35'W; sounding, 380 fm; wind, 220°, force 4; weather, cloudy; sea, rough; wire angle, 09°. 117.40

0	16.1	33.49	0	16.1	33.49	24.58	337	0.00
11	15.96	33.49	10	15.97	33.49	24.61	334	0.03
30	15.96	33.49	20	15.94	33.49	24.62	333	0.07
46	15.86	33.48	30	15.96	33.49	24.62	333	0.10
56	14.97	33.38	50	15.70	33.47	24.66	329	0.17
65	14.67	33.26	75	13.38	33.40	25.10	287	0.24
76	13.37	33.45	100	11.58	33.55	25.56	243	0.31
86	13.16	33.54	150	9.80	33.80	26.07	195	0.42
100	11.58	33.55	200	9.93	34.30	26.44	160	0.51
111	10.40	33.46	250	9.50	34.38	26.57	148	0.59
135	9.70	33.60	300	8.93	34.39	26.67	138	0.67
165	10.02	34.04	400	7.88	34.37	26.82	124	0.80
219	9.82	34.35	500	6.80	34.466	27.04	103	0.92
282	9.12	34.39	600	5.98	34.43	27.13	94	1.03
396	7.94	34.37						
524	6.58	34.46						
659	5.50	34.41						

CREST; January 19, 1954; 0837 GCT; 28°23'N, 114°14'W; sounding, 33 fm; wind, calm; weather, cloudy; sea, smooth; wire angle, 00°. 120.25

0	15.73	33.67	0	15.73	33.67	24.81	315	0.00
10	15.76	33.68	10	15.76	33.68	24.81	315	0.03
16	15.73	33.62	20	15.67	33.62	24.78	318	0.06
21	15.64	33.62	30	15.32	33.58	24.83	313	0.10
26	15.32	33.60						
31	15.32	33.58						
36	15.23	33.61						
42	14.83	33.60						

CREST; January 19, 1954; 0402 GCT; 28°03'N, 114°54'W; sounding, 45 fm; wind, 160°, force 1; weather, cloudy; sea, smooth; wire angle, 00°. 120.35

0	15.90	33.65	0	15.90	33.65	24.75	320	0.00
10	15.91	33.62	10	15.91	33.62	24.73	322	0.03
15	15.84	33.57	20	15.84	33.60	24.73	322	0.06
20	15.84	33.60	30	15.82	33.66	24.78	318	0.10
25	15.82	33.58	50	15.79	33.69	24.81	315	0.16
30	15.82	33.66	75	(15.63)	(33.62)	(24.79)	(317)	(0.24)
41	15.81	33.66						
46	15.79	33.69						
56	15.78	33.68						
72	15.66	33.63						

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

120.50 CREST; January 18, 1954; 2047 GCT; 27°33.5'N, 115°52'W; sounding, 2000 fm; wind, 330°, force 1; weather, cloudy; sea, moderate; wire angle, 15°.

0	15.9	33.44	0	15.9	33.44	24.59	336	0.00
10	15.56	33.40	10	15.56	33.40	24.64	331	0.03
25	15.56	33.37	20	15.56	33.37	24.61	334	0.07
49	15.22	33.40	30	15.53	33.38	24.63	332	0.10
60	14.64	33.34	50	15.18	33.40	24.72	323	0.17
69	13.81	33.37	75	12.80	33.30	25.14	283	0.24
79	12.44	33.21	100	12.88	33.70	25.43	256	0.31
98	12.81	33.69	150	10.84	34.04	26.08	194	0.42
122	10.54	33.64	200	9.77	34.13	26.33	170	0.58
151	10.82	34.05	250	9.54	34.34	26.53	151	0.60
198	9.78	34.13	300	9.19	34.42	26.65	140	0.68
265	9.47	34.38	400	7.76	34.40	26.86	120	0.81
365	8.24	34.43	500	6.66	34.34	26.97	110	0.93
489	6.76	34.34	600	5.92	34.34	27.06	101	1.05
667	5.50	34.34	700	5.30	34.35	27.15	92	1.15
886	4.38	34.42	800	4.72	34.38	27.24	84	1.25
1190	3.60	34.56	1000	4.04	34.48	27.39	70	1.42

120.70 CREST; January 18, 1954; 1025, 1047 GCT; 26°54'N, 117°14'W; sounding, 2100 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 02°, 07°.

0	16.3	33.73	0	16.3	33.73	24.72	323	0.00
10	16.15	33.69	10	16.15	33.69	24.73	322	0.03
26	16.17	33.69	20	16.15	33.69	24.73	322	0.06
			30	16.20	33.70	24.72	323	0.10
44	16.62	33.84	50	16.80	33.95	24.78	318	0.16
55	16.90	33.98	75	13.46	33.61	25.24	274	0.24
66	15.91	33.84	100	13.00	33.97	25.62	238	0.30
76	13.45	33.61	150	11.14	34.19	26.14	188	0.41
95	13.48	33.93	200	9.99	34.32	26.44	160	0.50
120	11.60	34.04	250	9.28	34.35	26.58	146	0.58
150	11.14	34.19	300	8.80	34.41	26.71	134	0.65
200	9.99	34.32	400	7.90	34.45	26.88	118	0.78
270	9.07	34.36	500	6.86	34.45	27.03	104	0.90
376	8.18	34.45	600	6.10	34.44	27.12	95	1.01
504	6.80	34.45	700	5.48	34.43	27.19	89	1.11
690	5.52	34.43	800	4.92	34.44	27.26	82	1.20
914	4.38	34.46	1000	4.08	34.48	27.39	70	1.37
1222	3.44	34.52						

120.120 CREST; January 7, 1954; 2128 GCT; 25°21.5'N, 120°22'W; sounding, 2150 fm; wind, 360°, force 5; weather, cloudy; sea, very rough; wire angle, 16°.

0	17.3	33.48	0	17.3	33.48	24.30	363	0.00
10	17.25	33.47	10	17.25	33.47	24.30	363	0.04
25	17.24	33.49	20	17.24	33.48	24.31	362	0.07
54	17.24	33.51	30	17.24	33.49	24.32	361	0.11
63	17.28	33.57	50	17.24	33.51	24.34	360	0.18
72	17.30	33.56	75	17.30	33.55	24.35	359	0.27
86	15.30	33.37	100	14.62	33.47	24.90	306	0.36
106	14.34	33.48	150	10.79	33.53	25.69	231	0.49
130	11.78	33.42	200	10.16	34.04	26.20	183	0.60
158	10.45	33.63	250	10.02	34.32	26.44	160	0.68
208	10.10	34.11	300	9.30	34.38	26.60	145	0.76
280	9.65	34.38	400	7.76	34.32	26.80	126	0.90
377	8.05	34.33	500	6.74	34.31	26.93	113	1.03
503	6.78	34.31	600	5.99	34.33	27.05	102	1.15
675	5.50	34.35	700	5.33	34.36	27.15	92	1.25
896	4.34	34.43	800	4.77	34.39	27.24	84	1.35
1189	3.57	34.51	1000	4.33	34.46	27.34	74	1.52

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

N. B. SCOFIELD; January 8, 1954; 0726 GCT; 24°00'N, 123°00'W; sounding, 950+ fm; wind, 020°, force 4; weather, clear; sea, moderate; wire angle, 08°. 120.160 (3)

0	19.30	34.38	5.35	0	19.30	34.38	5.35	24.49	345	0.00
70	19.30	34.36	5.25	10	(19.30)	(34.37)	(5.34)	(24.48)	(346)	(0.04)
89	19.26	34.36	5.26	20	(19.30)	(34.37)	(5.33)	(24.48)	(346)	(0.07)
109	18.14	34.14	5.40	30	(19.30)	(34.37)	(5.30)	(24.48)	(346)	(0.10)
128	16.72	34.00	5.43	50	(19.30)	(34.36)	(5.27)	(24.48)	(346)	(0.17)
148	14.81	33.79	5.23	75	19.30	34.36	5.24	24.47	347	(0.26)
167	12.27	33.69	4.80	100	19.00	34.31	5.33	24.52	342	(0.35)
196	10.90	33.68	4.03	150	14.50	33.77	5.20	25.15	282	(0.50)
244	9.64	34.03	2.96	200	10.73	33.69	3.92	25.82	219	(0.63)
292	8.73	34.16	2.32	250	9.54	34.05	2.83	26.32	172	(0.73)
341	7.79	34.18	1.93	300	8.58	34.16	2.28	26.54	150	(0.82)
389	7.28	34.22	1.16	400	7.15	34.23	1.04	26.81	125	(0.96)
486	6.34	34.29	0.51	500	6.23	34.31	0.46	27.00	107	(1.08)
583	5.68	34.42	0.37	600	5.59	34.43	0.35	27.18	90	(1.19)
778	4.96	34.47	0.41	700	5.23	34.45	0.37	27.23	85	(1.28)
975	4.25	34.61u	0.55	800	4.87	34.47	0.42	27.28	80	(1.37)
				1000	(4.16)		(0.56)			

N. B. SCOFIELD; January 10, 1954; 1759 GCT; 21°55'N, 126°50'W; sounding, 950+ fm; wind, 040°, force 4; weather, overcast; sea, very rough; wire angle, 12°. 120.220 (5)

0	19.68	34.60	5.16	0	19.68	34.60	5.16	24.56	339	0.00
107	19.66	34.57	5.22	10	(19.68)	(34.60)	(5.17)	(24.56)	(339)	(0.03)
118	18.88	34.40	5.29	20	(19.68)	(34.60)	(5.17)	(24.56)	(339)	(0.07)
126	17.66	34.22	5.30	30	(19.68)	(34.60)	(5.18)	(24.56)	(339)	(0.10)
135	17.10	34.22	5.19	50	(19.68)	(34.60)	(5.18)	(24.56)	(339)	(0.17)
144	16.65	34.15	5.15	75	(19.68)	(34.60)	(5.20)	(24.56)	(339)	(0.26)
155	15.45	34.03	4.88	100	(19.67)	(34.58)	(5.24)	(24.55)	(340)	(0.34)
174	13.63	33.89	4.52	150	16.00	34.08	5.05	25.06	291	(0.50)
193	11.88	33.87	4.01	200	11.44	33.89	3.80	25.85	216	(0.63)
242	9.82	34.12	2.79	250	9.73	34.14	2.63	26.34	169	(0.73)
291	9.22	34.26	1.83	300	9.13	34.28	1.67	26.55	149	(0.81)
387	8.18	34.41	0.66	400	8.03	34.41	0.58	26.83	123	(0.95)
485	7.10	34.45	0.34	500	6.97	34.46	0.33	27.03	104	(1.07)
581	6.29	34.52	0.30	600	6.16	34.52	0.30	27.17	90	(1.18)
777	5.16	34.53	0.37	700	5.55	34.53	0.31	27.26	82	(1.27)
974	4.38	-	-	800	5.05					
				1000	(4.29)					

CREST; January 17, 1954; 1055 GCT; 27°18'N, 114°51.5'W; sounding, 270 fm; wind, 300°, force 2; weather, partly cloudy; sea, slight; wire angle, 14°. 123.40

0	17.8	34.33	0	17.8	34.33		24.83	313	0.00
9	17.70	34.31	10	17.70	34.31		24.84	312	0.03
15	17.73	34.40	20	17.72	34.29		24.82	314	0.06
19	17.73	34.29	30	17.67	34.27		24.81	315	0.09
25	17.72	34.31	50	13.97	33.79		25.28	270	0.15
30	17.67	34.27	75	11.46	33.71		25.71	229	0.22
40	15.86	34.02	100	11.10	33.79		25.84	217	0.27
50	13.97	33.79	150	10.54	34.21		26.26	177	0.37
65	12.06	33.68	200	10.22	34.40		26.47	157	0.46
80	11.32	33.73	250	9.60	34.41		26.59	146	0.53
99	11.10	33.78	300	9.04	34.42		26.68	137	0.61
123	10.71	34.06	400	(8.21)	(34.42)		(26.81)	(125)	(0.75)
163	10.48	34.27							
201	10.20	34.40							
251	9.56	34.41							
322	8.83	34.42							
397	8.23	34.42							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^5 cm/g	dyn. m
123.60	CREST; January 17, 1954; 2020 GCT; 26°37'N, 116°08.5'W; sounding, 2060 fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 11°.									
0	17.2	33.86		0	17.2	33.86		24.61	334	0.00
10	17.12	33.89		10	17.12	33.89		24.65	330	0.03
31	17.13	33.89		20	17.12	33.89		24.65	330	0.07
45	17.20	34.05		30	17.12	33.89		24.65	330	0.10
56	17.13	34.04		50	17.18	34.05		24.76	320	0.16
66	14.85	33.86		75	13.12	33.73		25.41	258	0.24
76	13.02	33.73		100	11.84	33.83		25.73	227	0.30
86	12.32	33.75		150	10.22	34.01		26.16	186	0.40
102	11.80	33.84		200	10.25	34.39		26.45	159	0.49
112	11.40	33.88		250	9.60	34.42		26.59	146	0.57
137	10.24	33.84		300	9.00	34.41		26.68	137	0.64
167	10.48	34.22		400	7.88	34.43		26.86	120	0.78
221	10.00	34.42		500	6.81	34.42		27.01	106	0.90
286	9.18	34.41		600	6.00	34.42		27.12	95	1.01
399	7.90	34.43								
528	6.55	34.42								
664	5.55	34.42								
127.34	CREST; January 16, 1954; 2112 GCT; 26°55'N, 114°05.5'W; sounding, 44 fm; wind, 270°, force 4; weather, partly cloudy; sea, moderate; wire angle, 00°.									
0	18.23	34.38		0	18.23	34.38		24.76	320	0.00
10	18.15	34.42		10	18.15	34.42		24.81	315	0.03
15	18.12	34.34		20	18.12	34.42		24.82	314	0.06
21	18.12	34.42		30	18.10	34.40		24.81	315	0.10
26	18.11	34.38		50	17.55	34.27		24.84	312	0.16
31	18.10	34.40								
36	18.10	34.38								
42	18.11	34.40								
52	16.86	34.20								
62	14.49	34.02								
127.50	CREST; January 16, 1954; 1310 GCT; 26°22'N, 115°10.5'W; sounding, 1930 fm; wind, 350°, force 5; weather, clear; sea, moderate; wire angle, 17°.									
0	18.5	34.32		0	18.5	34.32		24.65	330	0.00
10	18.39	34.30		10	18.39	34.30		24.66	329	0.03
30	18.42	34.29		20	18.42	34.29		24.64	331	0.07
44	18.40	34.28		30	18.42	34.29		24.64	331	0.10
54	15.42	33.76		50	17.30	34.20		24.85	311	0.16
64	13.41	33.46		75	13.19	33.71		25.38	260	0.24
74	13.20	33.69		100	11.28	33.69		25.73	227	0.30
84	12.96	33.78		150	10.48	34.30		26.34	169	0.40
98	11.32	33.69		200	10.60	34.40a)		26.40	164	0.48
107	11.10	33.83		250	9.20	34.36		26.61	144	0.56
131	10.58	33.95		300	8.82	34.38		26.68	137	0.63
160	10.88	34.33		400	7.44	34.31		26.83	123	0.77
213	9.46	34.33		500	6.62	34.38		27.00	107	0.89
274	9.06	34.38		600	6.00	34.37		27.08	99	1.00
386	7.58	34.31								
511	6.54	34.38								
643	5.76	34.36								

0a

a) The temperature inversion indicated by the bathythermograph observation accounts for this salinity value.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

N. B. SCOFIELD; January 8, 1954; 2242 GCT; 22°00'N, 123°00'W; sounding, 950+ fm; wind, 040°, force 4; weather, cloudy; sea, rough; wire angle, 15°. 128.175 (4)

0	19.80	34.50	5.30	0	19.80	34.50	5.30	24.45	349	0.00
77	19.41	34.58	5.40	10	(19.76)	(34.51)	(5.31)	(24.47)	(347)	(0.04)
87	19.22	-	5.42	20	(19.74)	(34.52)	(5.32)	(24.48)	(346)	(0.07)
96	18.49	34.54	5.37	30	(19.69)	(34.53)	(5.33)	(24.50)	(344)	(0.10)
105	17.14	34.13	5.40	50	(19.60)	(34.56)	(5.35)	(24.55)	(340)	(0.17)
116	16.73	33.98	5.34	75	(19.45)	(34.58)	(5.40)	(24.60)	(335)	(0.26)
144	14.32	33.95	4.17	100	17.50	34.21	5.36	24.81	315	(0.34)
168	11.86	33.79	3.93	150	13.50	33.89	4.10	25.47	253	(0.48)
191	10.58	33.84	3.86	200	10.24	33.89	3.72	26.06	196	(0.60)
239	9.33	34.12	2.78	250	9.24	34.14	2.51	26.43	161	(0.69)
288	9.00	34.23	1.83	300	8.91	34.26	1.65	26.57	148	(0.77)
385	8.08	34.38	0.61	400	7.90	34.39	0.55	26.83	123	(0.91)
479	7.01	34.41	0.33	500	6.84	34.42	0.32	27.01	106	(1.03)
577	6.28	34.45	0.30	600	6.11	34.46	0.30	27.13	94	(1.14)
771	5.12	34.49	0.38	700	5.48	34.48	0.32	27.23	85	(1.24)
968	4.41	34.52	0.52	800	5.00	34.49	0.38	27.29	79	(1.33)
				1000	(4.33)	(34.52)	(0.57)	(27.39)	(69)	(1.50)

CREST; January 15, 1954; 1414, 1422 GCT; 26°26.5'N, 113°29'W; sounding, 45 fm; wind, 020°, force 3; weather, clear; sea, moderate; wire angle, 03°, 04°. 130.30

0	18.78	34.45	0	18.78	34.45		24.68	327	0.00
10	18.84	34.46	10	18.84	34.46		24.67	328	0.03
			20	18.84	34.48		24.68	327	0.07
15	18.82	34.49	30	18.82	34.47		24.68	327	0.10
21	18.84	34.48	50	18.80	34.45		24.67	328	0.16
26	18.84	34.45							
31	18.82	34.47							
36	18.84	34.45							
41	18.82	34.44							
52	18.79	34.45							
62	18.68	34.44							

CREST; January 15, 1954; 1910 GCT; 26°11.5'N, 114°08.5'W; sounding, 1380 fm; wind, 010°, force 3; weather, clear; sea, rough; wire angle, 19°. 130.40

0	18.1	34.15	0	18.10	34.15		24.62	333	0.00
10	17.98	34.14	10	17.98	34.14		24.64	331	0.03
24	18.02	34.14	20	18.01	34.14		24.63	332	0.07
53	14.02	33.60	30	17.99	34.13		24.63	332	0.10
62	13.42	33.68	50	14.70	33.61		24.99	298	0.16
72	12.73	33.77	75	12.50	33.77		25.56	243	0.23
87	11.53	33.66	100	11.12	33.77		25.82	219	0.29
105	11.09	33.87	150	11.15	34.38		26.29	178	0.39
129	11.56	34.22	200	10.77	34.46		26.42	162	0.48
156	11.10	34.38	250	10.05	34.50		26.57	148	0.56
207	10.64	34.47	300	9.36	34.50		26.69	136	0.63
280	9.62	34.51	400	8.18	34.44		26.83	123	0.76
381	8.40	34.44	500	7.10	34.46		27.00	107	0.89
516	6.95	34.46	600	6.15	34.46		27.13	94	1.00
699	5.47	34.46	700	5.42	34.46		27.22	86	1.09
927	4.46	34.53	800	4.95	34.49		27.30	78	1.19
1231	3.62	34.56	1000	4.24	34.54		27.42	67	1.35
			1200	3.70	34.67		27.58	52	1.49

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

130.60 CREST; January 16, 1954; 0349 GCT; 25°31'N, 115°25'W; sounding, 2050 fm; wind, 360°, force 4; weather, clear; sea, moderate; wire angle, 15°.

0	17.4	34.04	0	17.4	34.04	24.70	325	0.00
9	17.02	34.04	10	17.02	34.04	24.79	317	0.03
25	16.99	34.09	20	17.00	34.08	24.83	313	0.06
55	13.46	33.67	30	17.00	34.08	24.83	313	0.10
65	12.22	33.55	50	15.80	33.84	24.92	304	0.16
75	12.36	33.75	75	12.36	33.75	25.57	242	0.23
89	11.08	33.72	100	10.38	33.73	25.92	209	0.28
108	10.18	33.77	150	10.05	34.11	26.27	176	0.38
134	10.06	33.98	200	9.78	34.32	26.48	156	0.46
163	10.02	34.19	250	9.35	34.40	26.61	144	0.54
216	9.62	34.35	300	8.92	34.42	26.70	135	0.62
294	8.98	34.42	400	7.58	34.39	26.88	118	0.75
402	7.52	34.39	500	6.55	34.39	27.02	105	0.87
545	6.19	34.40	600	5.81	34.41	27.13	94	0.97
734	5.10	34.44	700	5.28	34.43	27.21	87	1.07
973	4.14	34.52	800	4.80	34.47	27.30	78	1.16
1284	3.33	34.54	1000	4.07	34.52	27.42	67	1.33

130.110 CREST; January 8, 1954; 1140 GCT; 23°48'N, 118°33.5'W; sounding, 2250 fm; wind, 270°, force 5; weather, partly cloudy; sea, very rough; wire angle, 16°.

0	18.2	33.86	0	18.2	33.86	24.37	357	0.00
10	18.08	33.82	10	18.08	33.82	24.37	357	0.04
25	18.10	33.80	20	18.10	33.80	24.35	359	0.07
52	18.10	33.82	30	18.10	33.80	24.35	359	0.11
61	18.10	33.82	50	18.10	33.82	24.36	358	0.18
70	18.10	33.81	75	18.10	33.82	24.36	358	0.27
85	16.30	33.86u	100	15.00	33.70	24.99	298	0.35
101	14.88	33.69	150	12.10	33.95	25.77	223	0.48
124	12.56	33.54	200	(11.50)	(34.40)	(26.24)	(179)	(0.59)
149	12.03	33.91	250	(10.30)	(34.40)	(26.45)	(164)	(0.67)
194	11.62	34.39	300	(9.30)	(34.37)	(26.60)	(145)	(0.75)
351	8.56	34.36	400	8.10	34.41	26.82	124	(0.89)
471	7.44	34.45	500	7.12	(34.46)	(27.00)	(107)	(1.02)
633	5.85	34.40u	600	6.06	(34.49)	(27.16)	(91)	(1.12)
838	4.75	34.55	700	5.42	(34.52)	(27.27)	(81)	(1.22)
1119	3.77	34.57	800	4.92	34.54	27.34	74	(1.30)
			1000	4.12	34.57	27.45	64	(1.46)

133.30 CREST; January 15, 1954; 0647 GCT; 25°55'N, 113°07'W; sounding, 100 fm; wind, 010°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	18.78	34.24	0	18.78	34.24	24.52	342	0.00
10	18.82	34.25	10	18.82	34.25	24.51	343	0.03
15	18.78	34.24	20	18.79	34.24	24.51	343	0.07
20	18.79	34.24	30	18.77	34.26	24.53	341	0.10
25	18.79	34.26	50	17.13	33.92	24.68	327	0.17
30	18.77	34.26	75	14.30	34.09	25.44	255	0.24
35	18.75	34.25	100	13.67	34.32	25.75	225	0.30
45	17.78	34.06	150	12.00	34.57	26.27	176	0.41
55	16.36	33.87						
65	14.86	33.99						
80	14.32	34.13						
99	13.70	34.31						
118	13.02	34.46						
151	11.98	34.57						

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T $10^{-5}cm^3/g$	ΔD dyn. m

CREST; January 14, 1954; 2113 GCT; 25°13'N, 114°27'W; sounding, 1950 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 22°. 133.50

0	18.0	34.00	0	18.0	34.00	24.53	341	0.00
10	18.00	34.00	10	18.00	34.00	24.53	341	0.03
29	18.02	34.02	20	18.01	34.01	24.53	341	0.07
44	17.98	33.99	30	18.02	34.02	24.54	340	0.10
53	17.92	34.03	50	17.94	34.02	24.56	339	0.17
62	14.36	33.37	75	13.75	33.37	25.00	297	0.25
71	13.88	33.42	100	11.75	33.58	25.55	244	0.32
81	13.54	33.36	150	12.14	34.32	26.05	197	0.43
94	12.03	33.51						
103	11.68	33.62						
126	11.68	33.95						
154	12.14	34.36						

CREST; January 14, 1954; 0319 GCT; 25°34'N, 112°18.5'W; sounding, 43 fm; wind, 210°, force 2; weather, drizzle; sea, rough; wire angle, 00°. 137.23

0	19.68	34.43	0	19.68	34.43	24.43	351	0.00
10	19.70	34.46	10	19.70	34.46	24.45	349	0.04
15	19.70	34.45	20	19.70	34.42	24.42	352	0.07
21	19.70	34.42	30	19.65	34.43	24.44	350	0.11
26	19.70	34.45	50	18.10	34.21	24.66	329	0.17
31	19.64	34.42						
36	19.70	34.38						
41	19.66	34.38						
52	17.70	34.17						
62	15.88	34.05						

CREST; January 14, 1954; 1204 GCT; 25°02.5'N, 113°25'W; sounding, 1600 fm; wind, 300°, force 4; weather, drizzle; sea, moderate; wire angle, 10°. 137.40

0	19.5	34.18	0	19.5	34.18	24.29	364	0.00
10	19.54	34.19	10	19.54	34.19	24.28	365	0.04
30	19.48	34.23	20	19.51	34.21	24.31	362	0.07
45	19.48	34.27	30	19.48	34.23	24.33	360	0.11
56	15.28	33.53	50	19.47	34.05	24.20	373	0.18
66	13.94	33.65	75	12.93	33.62	25.36	263	0.26
76	12.89	33.62	100	12.62	33.90	25.64	236	0.33
87	12.74	33.69	150	11.00	34.14	26.13	189	0.43
101	12.62	33.91	200	10.60	34.25	26.28	175	0.53
111	12.12	34.00	250	10.36	34.53	26.54	150	0.61
136	11.62	34.14	300	9.88	34.54	26.63	142	0.69
166	10.33	34.14	400	8.36	34.45	26.81	125	0.83
221	10.53	34.47	500	6.90	34.38	26.97	110	0.95
286	10.07	34.54	600	6.05	34.40	27.09	98	1.06
399	8.40	34.45						
528	6.62	34.38						
662	5.66	34.42						

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
137.140	CREST; January 9, 1954; 0321 GCT; 21°40'N, 119°41'W; sounding, 2200 fm; wind, 290°, force 4; weather, cloudy; sea, very rough; wire angle, 23°.									
0	19.2	34.16		0	19.2	34.16		24.35	359	0.00
9	19.24	34.16		10	19.24	34.16		24.34	360	0.04
24	19.24	34.14		20	19.24	34.14		24.32	361	0.07
52	19.27	34.15		30	19.24	34.14		24.32	361	0.11
61	19.28	34.18		50	19.24	34.15		24.33	360	0.18
71	19.28	34.14		75	19.30	34.04		24.23	370	0.27
84	17.44	33.89		100	16.00	33.78		24.83	313	0.36
102	15.86	33.77		150	12.00	33.74		25.63	237	0.50
125	14.00	33.73		200	10.36	34.26		26.33	170	0.60
151	11.93	33.74		250	9.24	34.24		26.51	153	0.68
199	10.40	34.26		300	8.55	34.35		26.70	135	0.76
270	8.91	34.25		400	7.60	34.42		26.90	116	0.89
366	7.94	34.42		500	6.62	34.43		27.04	103	1.01
496	6.66	34.43		600	6.02	34.47		27.15	92	1.11
671	5.68	34.51		700	5.53	34.52		27.25	83	1.21
896	4.69	34.56		800	5.08	34.55		27.33	75	1.30
1197	3.70	34.56		1000	4.32	34.56		27.42	67	1.46
140.35	CREST; January 13, 1954; 1910, 1924 GCT; 24°35.5'N, 112°43'W; sounding, 460 fm; wind, 260°, force 1; weather, cloudy; sea, rough; wire angle, 05°, 05°.									
0	19.6	34.14		0	19.6	34.14		24.23	370	0.00
10	19.56	34.14		10	19.56	34.14		24.24	369	0.04
31	19.52	34.14		20	19.53	34.14		24.25	368	0.07
41	19.47	34.14		30	19.52	34.14		24.25	368	0.11
				50	19.20	34.11		24.31	362	0.18
51	19.05	34.10		75	14.71	33.49		24.89	307	0.27
63	16.42	33.68		100	13.30	33.89		25.49	250	0.34
73	14.86	33.49		150	12.42	34.44		26.09	193	0.45
83	14.28	33.76		200	11.80	34.66		26.38	166	0.54
103	13.10	33.90		250	11.17	34.60		26.45	159	0.63
129	11.74	33.95		300	10.55	34.56		26.53	151	0.71
158	12.22	34.54		400	9.08	34.53		26.76	129	0.85
207	11.73	34.66		500	7.34	34.49		26.99	108	0.98
277	10.86	34.57		600	6.30	34.44		27.09	98	1.09
381	9.44	34.54		700	5.60	34.43		27.17	91	1.19
509	7.24	34.49		800	5.12	34.46		27.26	82	1.29
664	5.80	34.43								
820	5.02	34.47								
140.50	CREST; January 13, 1954; 1214 GCT; 24°08.5'N, 113°41'W; sounding, 1800 fm; wind, 270°, force 3; weather, partly cloudy; sea, slight; wire angle, 05°.									
0	19.3	34.25		0	19.3	34.25		24.39	355	0.00
10	19.26	34.25		10	19.26	34.25		24.40	354	0.04
25	19.28	34.26		20	19.27	34.26		24.41	353	0.07
51	19.22	34.26		30	19.27	34.26		24.41	353	0.11
62	16.05	33.99		50	19.23	34.26		24.42	352	0.18
72	15.44	34.14		75	15.32	34.19		25.30	268	0.26
82	15.10	34.29		100	14.58	34.49		25.69	231	0.32
102	14.54	34.51		150	12.77	34.77		26.28	175	0.42
127	13.66	34.70		200	11.50	34.71		26.48	156	0.51
157	12.54	34.77		250	10.40	34.66		26.64	141	0.58
206	11.39	34.70		300	9.30	34.62		26.79	127	0.65
276	9.86	34.64		400	7.40	34.53		27.01	106	0.78
378	7.72	34.54		500	6.38	34.50		27.13	94	0.88
506	6.32	34.50		600	5.80	34.48		27.19	89	0.98
690	5.34	34.48		700	5.30	34.48		27.25	83	1.08
911	4.44	34.49		800	4.86	34.48		27.30	78	1.16
1216	3.52	34.58		1000	4.15	34.51		27.40	69	1.33

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

CREST; January 9, 1954; 1758 GCT; 22°06'N, 117°25'W; sounding, 2250 fm; wind, 010°, force 4; weather, cloudy; sea, high; wire angle, 26°. 140.110

0	19.5	34.25	0	19.5	34.25	24.34	360	0.00
10	19.54	34.27	10	19.54	34.27	24.35	359	0.04
23	19.56	34.27	20	19.56	34.27	24.34	360	0.07
52	19.56	34.23	30	19.57	34.26	24.33	360	0.11
60	19.54	34.23	50	19.56	34.23	24.31	362	0.18
70	19.53	34.25	75	19.40	34.23	24.35	359	0.27
83	16.73a)	33.80	100	13.92	33.51	25.07	290	0.35
100	13.92	33.51	150	13.34	34.42	25.89	212	0.48
122	12.98	33.95	200	12.51	34.57	26.18	184	0.58
147	13.34	34.41	250	11.60	34.64	26.40	164	0.67
192	12.66	34.55	300	10.36	34.56	26.57	148	0.75
257	11.46	34.64	400	8.28	34.45	26.82	124	0.90
345	9.38	34.48	500	7.00	34.44	27.00	107	1.02
462	7.40	34.44	600	6.20	34.45	27.11	96	1.13
623	6.04	34.45	700	5.60	34.46	27.20	88	1.23
833	4.90	34.49	800	5.05	34.48	27.28	80	1.32
1125	3.82	34.54	1000	4.25	34.52	27.40	69	1.49

CREST; January 12, 1954; 1345 GCT; 24°13'N, 112°04.5'W; sounding, 126 fm; wind, 270°, force 2; weather, cloudy; sea, rough; wire angle, 08°. 143.30

0	19.93	34.35	0	19.93	34.35	24.30	363	0.00
10	19.96	34.40	10	19.96	34.40	24.33	360	0.04
15	19.96	34.35	20	19.96	34.34	24.29	364	0.07
20	19.96	34.34	30	19.96	34.39	24.33	360	0.11
25	19.96	34.34	50	19.18	34.20	24.38	356	0.18
30	19.96	34.39	75	14.77	33.69	25.03	294	0.26
36	19.96	34.34	100	12.85	34.03	25.69	231	0.33
46	19.64	34.26	150	12.75	34.63	26.18	184	0.43
56	18.26	34.04	200	11.76	34.68	26.41	163	0.52
66	15.56	33.73						
76	14.70	33.69						
96	13.02	33.92						
110	13.22	34.34						
139	12.96	34.62						
168	12.42	34.64						
203	11.71	34.69						

CREST; January 12, 1954; 0014 GCT; 23°55.5'N, 111°06.5'W; sounding, 110 fm; wind, 270°, force 2; weather, cloudy; sea, moderate; wire angle, 02°. 147.20

0	20.84	34.62	0	20.84	34.62	24.27	366	0.00
10	20.84	34.63	10	20.84	34.63	24.28	365	0.04
15	20.80	34.60	20	20.79	34.60	24.27	366	0.07
20	20.79	34.60	30	20.76	34.63	24.30	364	0.11
25	20.79	34.61	50	19.10	34.43	24.58	337	0.18
30	20.76	34.63	75	13.82	33.90	25.39	260	0.26
36	20.72	34.58	100	13.78	34.20	25.63	237	0.32
46	20.31	34.54	150	12.44	34.64	26.24	179	0.42
56	16.88	33.95						
66	15.40	34.02						
82	13.53	33.80						
102	13.67	34.33						
122	12.96	34.43						
156	12.36	34.67						

a) Alternate value, 15.61°C, not used in interpolation.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
147.30	CREST; January 12, 1954; 0540, 0554 GCT; 23°38'N, 111°47'W; sounding, 440 fm; wind, 270°, force 3; weather, cloudy; sea, moderate; wire angle, 08°, 07°.									
0	21.6	34.86		0	21.6	34.86		24.24	369	0.00
10	21.60	34.85		10	21.60	34.85		24.24	369	0.04
30	21.64	34.85		20	21.64	34.85		24.22	371	0.07
46	21.64	34.87		30	21.64	34.85		24.22	371	0.11
56	21.05	34.72		50	21.63	34.85		24.23	370	0.19
66	20.07	34.57		75	18.70	34.39		24.65	330	0.27
				100	13.78	33.89		25.40	259	0.35
78	18.09	34.27		150	12.60	34.61		26.19	184	0.46
88	15.20	33.74		200	11.80	34.68		26.40	164	0.55
103	13.52	34.06		250	10.88	34.68		26.57	148	0.63
114	13.40	34.33		300	10.30	34.63		26.63	142	0.70
139	12.75	34.57		400	8.90	34.57		26.82	124	0.84
171	12.32	34.65		500	7.96	34.53		26.93	113	0.97
226	11.23	34.69		600	7.76	34.51		26.95	111	1.09
290	10.44	34.64								
405	8.80	34.57								
536	7.85	34.52								
671	7.72	34.51								
147.90	CREST; January 10, 1954; 0839 GCT; 21°36'N, 115°25'W; sounding, 2250 fm; wind, 360°, force 3; weather, partly cloudy; sea, high; wire angle, 20°.									
0	21.6	34.53		0	21.6	34.53		23.99	393	0.00
10	21.60	34.53		10	21.60	34.53		23.99	393	0.04
24	21.60	34.54		20	21.60	34.54		24.00	392	0.08
53	21.53	34.51		30	21.59	34.54		24.00	392	0.12
62	12.07	34.37		50	21.53	34.52		24.00	392	0.20
71	16.80	33.67		75	16.10	33.67		24.72	323	0.29
85	15.24	33.73		100	14.35	33.93		25.31	267	0.36
104	14.12	33.93		150	11.16	34.03		26.01	201	0.48
128	12.39	33.94		200	10.96	34.48		26.40	164	0.57
156	11.13	34.09		250	10.40	34.52		26.53	151	0.65
207	10.92	34.49		300	9.46	34.52		26.69	136	0.73
283	9.82	34.52		400	8.08	34.48		26.87	119	0.86
385	8.20	34.48		500	7.32	34.52		27.02	105	0.98
521	7.15	34.52		600	6.50	34.52		27.13	94	1.09
704	5.72	34.52		700	5.75	34.52		27.23	85	1.19
933	4.59	34.52		800	5.19	34.52		27.29	79	1.28
1234	3.54	34.58		1000	4.32	34.53		27.40	69	1.45
150.25	CREST; January 11, 1954; 1613 GCT; 23°13'N, 111°02'W; sounding, 690 fm; wind, 040°, force 3; weather, cloudy; sea, slight; wire angle, 16°.									
0	21.3	35.13		0	21.3	35.13		24.53	341	0.00
10	21.39	35.14		10	21.39	35.14		24.51	343	0.03
30	21.41	35.15		20	21.42	35.15		24.51	343	0.07
45	21.14	35.16		30	21.41	35.15		24.52	342	0.10
55	20.64	35.12		50	20.95	35.14		24.63	332	0.17
65	19.16	34.95		75	17.92	34.83		25.18	280	0.25
75	17.92	34.83		100	15.20	34.62		25.65	235	0.31
84	16.48	34.68		150	12.60	34.62		26.20	183	0.42
99	15.33	34.63		200	11.84	34.68		26.39	164	0.51
109	14.28	34.60		250	11.20	34.67		26.50	154	0.59
133	13.36	34.63		300	10.50	34.63		26.60	145	0.67
162	12.30	34.61		400	9.08	34.55		26.77	128	0.81
216	11.64	34.69		500	7.40	34.50		26.99	108	0.94
278	10.82	34.65		600	6.36	34.51		27.14	93	1.05
388	9.30	34.56								
515	7.19	34.50								
649	6.00	34.51								

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

CREST; January 11, 1954; 0850 GCT; 22°43'N, 111°58'W; sounding, 1900 fm; wind, 300°, force 2; weather, clear; sea, rough; wire angle, 05°. 150.40

0	20.5		0	20.5
10	20.54		10	20.54
25	20.54		20	20.55
51	20.44		30	20.52
62	20.53		50	20.43
72	19.70		75	19.10
82	17.18		100	15.00
102	14.77		150	11.48
127	12.43		200	10.74
156	11.44		250	10.46
205	10.74		300	9.50
273	9.97		400	8.24
374	8.48		500	7.49
500	7.49		600	6.68
679	6.00		700	5.82
898	4.66		800	5.15
1200	3.70		1000	4.28
			1200	3.70

CREST; January 10, 1954; 2238, 2252 GCT; 22°05'N, 113°17'W; sounding, 2100 fm; wind, 020°, force 3; weather, partly cloudy; sea, very rough; wire angle, 15°, 16°. 150.60

0	21.4	34.46	0	21.4	(34.46)	(23.99)	(393)	(0.00)
			10	21.28	34.45	24.02	390	0.04
10	21.28	34.45	20	21.24	34.46	24.04	388	0.08
25	21.24	34.46	30	21.22	34.46	24.04	388	0.12
55	21.12	34.43	50	21.15	34.44	24.05	387	0.20
65	16.84	33.64	75	15.71				
75	15.71	-	100	14.80				
90	15.70	-	150	12.50				
110	12.62	-	200	11.70				
133	12.85	-	250	10.85				
160	12.29	-	300	9.85				
212	11.56	-	400	8.62				
287	10.03	-	500	7.42				
390	8.77	-	600	6.55				
526	7.18	-	700	5.85				
710	5.79	-	800	5.28				
942	4.61	-	1000	4.38				
1247	3.62	-	1200	3.72				

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
77.50-H[a)]	I-10	0725	35°03.5'	120°53.0'	95	320°	6	clear	slight	12.54	33.02
80.51-H	10	1205	34°26.5'	120°32.0'	55	330°	2	clear	slight	13.22	33.37
80.60-H	10	1750	34°09.5'	121°08.5'	1100	320°	4	partly cloudy	moderate	12.71	33.25
80.80-H	11	0450	33°21.5'	122°31.5'	2400	320°	2	partly cloudy	slight	12.95	33.17
80.100-H	11	1535	32°32.0'	123°56.0'	2300	270°	7	sky obscured	very rough	14.66	32.99
83.40-H	9	0107	34°13.5'	119°22.0'	11	280°	3	partly cloudy	slight	14.35	33.40
83.48-H	9	0835	33°58.0'	119°54.5'	110	320°	5	clear	slight	12.86	33.36
83.55-H	9	1400	33°41.0'	120°27.5'	610	320°	6	clear	very rough	12.56	33.42
85.39-H	8	2247	34°00.0'	119°04.5'	245	290°	3	partly cloudy	slight	14.44	33.33
85.40-H	8	2130	33°57.0'	119°11.0'	425	320°	2	cloudy	slight	14.74	33.46
85.50-H	8	1455	33°27.5'	119°55.0'	485	310°	6	missing	very rough	13.56	33.41
85.60-H	8	0800	33°16.5'	120°33.5'	1313	300°	6	clear	rough	12.83	33.23
87.35-H	6	0650	33°50.0'	118°37.5'	330	360°	2	partly cloudy	calm	14.24	33.42
87.45-H	6	1334	33°28.5'	119°21.5'	720	270°	3	cloudy	moderate	14.82	33.40
87.55-H	8	0118	33°10.0'	120°00.5'	640	280°	6	partly cloudy	rough	14.04	33.39
90.30-H	14	0645	33°24.5'	117°55.5'	325	300°	2	clear	smooth	14.22	33.35
90.45-H	13	2240	32°54.5'	118°56.0'	940	090°	3	clear	moderate	14.44	33.34

a) No hydrographic data were collected at the net-tow stations occupied by RV Crest on Cruise 5401.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
90.60-H	I-13	1415	32°27.0'	120°01.5'	580	090°	4	partly cloudy	moderate	13.13	33.38
90.80-H	13	0255	31°44.0'	121°19.0'	1450	320°	4	cloudy	rough	14.36	33.22
90.100-H	12	1615	31°03.5'	122°37.0'	2260	320°	6	cloudy	very rough	15.38	33.12
93.27-H	14	1305	32°57.0'	117°19.0'	80	040°	2	clear	calm	14.04	33.36
93.40-H	14	2020	32°28.0'	118°14.0'	850	270°	3	partly cloudy	slight	13.94	33.34
93.60-H	15	0625	31°48.5'	119°32.0'	1900	270°	3	cloudy	slight	13.68	33.37
97.30-H	16	0305	32°15.0'	117°08.5'	27	300°	3	partly cloudy	slight	13.86	33.35
97.32-H	16	0145	32°11.5'	117°19.0'	680	290°	2	partly cloudy	moderate	14.24	33.29
97.50-H	15	1615	31°28.0'	118°28.0'	1400	270°	3	cloudy	slight	13.63	33.54
100.30-H	16	0825	31°40.5'	116°47.0'	235	290°	2	partly cloudy	slight	13.90	33.32
100.40-H	16	1255	31°21.0'	117°28.0'	1060	290°	3	partly cloudy	slight	15.34	33.40
100.60-H	16	2300	30°39.0'	118°47.0'	1600	300°	3	cloudy	moderate	14.12	33.18
100.80-H	17	0940	29°59.0'	120°07.0'	2225	270°	4	cloudy	slight	14.25	33.18
103.35-H	22	0600	30°55.0'	116°45.0'	1050	320°	3	clear	moderate	13.94	33.39
103.50-H	20	2300	30°23.0'	117°51.0'	-	290°	6	overcast	high	13.61	33.24
107.32-H	19	1940	30°27.0'	116°11.5'	340	240°	4	drizzle	moderate	14.10	33.29
107.40-H	20	0120	30°11.0'	116°43.5'	1520	220°	7	drizzle	rough	14.54	33.37
107.60-H	20	1240	29°26.5'	118°02.0'	2550	320°	6	partly cloudy	very rough	14.20	33.35
110.35-H	19	1335	29°46.5'	116°00.5'	530	220°	3	overcast	slight	15.36	33.32

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
110.50-H	I-19	0500	29°14.5'	117°01.0'	1650	290°	2	overcast	moderate	15.40	33.33
110.70-H	18	1845	28°35.0'	118°19.0'	1920	330°	3	cloudy	moderate	15.24	33.35
110.90-H	18	0905	27°58.0'	119°35.0'	2200	040°	2	partly cloudy	calm	15.74	33.30

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; February 3, 1954; 2242 GCT; 34°54.5'N, 121°13'W; sounding, 325 fm; wind, 270°, force 2; weather, haze; sea, moderate; wire angle, 13°. 77.55

0	-	33.25	0	(12.42)	33.25	(25.16)	(281)	(0.00)
10	12.41	33.26	10	12.41	33.26	25.18	280	0.03
30	12.28	33.28	20	12.34	33.27	25.20	278	0.06
40	12.24	33.33	30	12.28	33.28	25.22	276	0.08
50	12.21	33.27	50	12.21	33.27	25.23	275	0.14
60	12.15	33.30	75	11.68	33.41	25.44	255	0.20
70	12.06	33.39	100	10.20	33.61	25.85	216	0.26
79	11.10	33.42	150	9.36	33.95	26.26	177	0.36
88	10.52	33.51	200	8.51	34.04	26.47	157	0.44
98	10.26	-	250	8.22	34.20	26.63	142	0.52
117	9.84	33.76	300	7.84	34.22	26.71	134	0.59
141	9.52	33.93	400	6.94	34.22	26.84	122	0.73
159	9.17	33.96	500	(6.02)	(34.22)	(26.95)	(111)	(0.85)
198	8.52	34.04						
275	8.07	34.22						
378	7.17	-						
498	6.06	34.22						

CREST; February 4, 1954; 0845 GCT; 34°19'N, 120°48'W; sounding, 465 fm; wind, 290°, force 4; weather, clear; sea, moderate; wire angle, 18°. 80.55

0	13.1	33.44	0	13.1	33.44	25.19	279	0.00
10	12.76	33.44	10	12.76	33.44	25.26	272	0.03
29	12.57	33.38	20	12.66	33.40	25.24	274	0.05
43	12.34	33.44	30	12.55	33.38	25.25	273	0.08
53	11.45	33.40	50	11.72	33.40	25.43	256	0.14
63	10.79	33.46	75	10.37	33.53	25.76	224	0.19
72	10.44	33.52	100	9.44	33.70	26.05	197	0.24
82	10.20	33.57	150	8.76	33.90	26.32	171	0.34
96	9.48	33.69	200	8.16	34.02	26.50	154	0.42
105	9.40	33.71	250	7.63	34.07	26.62	143	0.50
130	8.98	33.86	300	7.33	34.13	26.71	134	0.57
157	8.70	33.92	400	6.79	34.24	26.87	119	0.70
209	8.06	34.03	500	6.10	34.28	27.00	107	0.82
271	7.48	34.09	600	5.43	34.34	27.12	95	0.93
383	6.90	34.23						
509	6.04	34.28						
642	5.16	34.37						

CREST; February 4, 1954; 1626 GCT; 33°49'N, 121°50'W; sounding, 2000 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 17°. 80.70

0	12.8	32.99	0	12.8	32.99	24.90	306	0.00
10	12.66	-	10	12.66	32.98	24.91	305	0.03
25	12.34	32.98	20	12.44	32.98	24.95	301	0.06
55	11.78	33.06	30	12.27	33.00	25.01	296	0.09
65	10.56	33.04	50	11.93	33.06	25.12	285	0.15
74	11.35	33.33	75	11.35	33.33	25.44	255	0.21
89	9.56	33.18	100	9.24	33.22	25.70	230	0.27
108	9.02	33.48	150	8.05	33.78	26.33	170	0.37
131	8.23	33.67	200	7.42	33.86	26.48	156	0.46
159	7.96	33.82	250	6.94	33.90	26.58	146	0.53
211	7.30	33.87	300	6.53	33.96	26.69	136	0.61
286	6.64	33.94	400	5.94	34.20	26.95	111	0.73
390	5.98	34.19	500	5.64	34.27	27.04	103	0.85
529	5.56	34.29	600	5.27	34.33	27.13	94	0.95
719	4.73	34.38	700	4.83	34.37	27.22	86	1.05

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m
82.47	CREST; February 5, 1954; 1624 GCT; 34°15'N, 119°58'W; sounding, 330 fm; wind, 260°, force 1; weather, clear; sea, slight; wire angle, 00°.							
0	14.4r	33.30	0	(13.24)	33.30	(25.05)	(292)	(0.00)
13	12.72	33.33	10	(13.06)	33.31	(25.09)	(288)	(0.03)
33	11.36	33.40	20	12.13	33.36	25.31	267	0.06
43	11.10	33.46	30	11.48	33.39	25.46	253	0.08
53	10.50	33.51	50	10.64	33.50	25.69	231	0.13
63	10.26	33.58	75	10.02	33.69	25.94	207	0.18
72	10.08	33.68	100	9.76	33.84	26.11	191	0.23
82	9.91	33.72	150	9.39	34.04	26.32	171	0.32
92	9.80	33.78	200	8.90	34.13	26.48	156	0.41
103	9.72	33.87	250	8.23	34.19	26.63	142	0.48
122	9.59	33.96	300	7.70	34.20	26.71	134	0.56
147	9.41	34.03	400	7.02	34.18	26.80	126	0.69
166	9.26	34.08	500	6.52	34.22	26.89	117	0.82
206	8.82	34.14						
285	7.84	34.20						
391	7.06	34.18						
513	6.46	34.23						
83.43	CREST; February 5, 1954; 2044 GCT; 34°08'N, 119°34'W; sounding, 130 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.							
0	14.24	33.30	0	14.24	33.30	24.84	312	0.00
10	13.44	33.29	10	13.44	33.29	25.00	297	0.03
15	13.18	33.30	20	13.03	33.32	25.11	286	0.06
21	13.00	33.32	30	12.38	33.35	25.26	272	0.09
26	12.66	33.33	50	11.28	33.41	25.51	248	0.14
31	12.30	33.35	75	10.44	33.53	25.74	226	0.20
36	12.00	33.37	100	9.89	33.74	26.01	201	0.25
46	11.48	33.39	150	9.16	34.06	26.38	166	0.34
56	11.04	33.45	200	8.62	34.16	26.54	150	0.42
66	10.67	33.51						
75	10.44	33.53						
95	9.95	33.72						
110	9.79	33.78						
140	9.30	33.99						
169	8.90	34.14						
206	8.58	34.16						
83.51	CREST; February 5, 1954; 1134 GCT; 33°52.5'N, 120°08.5'W; sounding, 90 fm; wind, 090°, force 3; weather, clear; sea, slight; wire angle, 00°.							
0	12.82	33.37	0	12.82	33.37	25.20	278	0.00
10	12.76	33.38	10	12.76	33.38	25.21	277	0.03
21	12.68	33.42	20	12.67	33.42	25.26	272	0.06
32	11.96	33.43	30	12.16	33.43	25.36	262	0.08
37	11.70	33.45	50	10.37	33.64	25.85	216	0.13
47	10.60	33.60	75	(9.63)	(33.75)	(26.06)	(196)	(0.18)
57	9.98	33.69						
73	9.66	33.75						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

CREST; February 5, 1954; 0558 GCT; 33°34'N, 120°45'W; sounding, 880 fm; wind, 280°, force 2; weather, clear; sea, moderate; wire angle, 14°. 83.60

0	13.8	33.36	0	13.8	33.36	24.99	298	0.00
15	13.46	33.36	10	13.64	33.36	25.02	295	0.03
30	12.99	33.36	20	13.28	33.36	25.09	288	0.06
45	10.93	33.38	30	12.99	33.36	25.14	283	0.09
55	10.34	33.40	50	10.62	33.39	25.61	239	0.14
64	9.91	33.43	75	9.56	33.54	25.91	210	0.19
74	9.58	33.54	100	9.09	33.61	26.04	198	0.24
84	9.43	33.49	150	8.50	33.90	26.35	168	0.34
99	9.10	33.61	200	7.90	34.04	26.55	149	0.42
108	8.97	33.64	250	7.54	34.11	26.67	138	0.49
131	8.75	33.80	300	7.19	34.16	26.75	130	0.56
160	8.37	33.94	400	6.50	34.22	26.89	117	0.69
211	7.80	34.06	500	6.09	34.28	27.00	107	0.80
274	7.39	34.14	600	5.54	34.34	27.11	96	0.91
385	6.58	34.21						
512	6.03	34.29						
648	5.24	34.36						

CREST; February 6, 1954; 0231 GCT; 34°00.5'N, 119°04'W; sounding, 45 fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 05°. 85.39

0	14.05	33.38	0	14.05	33.38	24.94	302	0.00
11	13.58	33.33	10	13.60	33.33	25.01	296	0.03
16	13.44	33.34	20	13.26	33.35	25.08	289	0.06
21	13.23	33.35	30	12.94	33.37	25.16	281	0.09
26	13.14	33.35	50	11.63	33.47	25.49	250	0.11
31	12.88	33.37						
36	12.58	33.33						
40	12.49	33.37						
52	11.44	33.48						

CREST; February 6, 1954; 0716 GCT; 33°46.5'N, 119°33'W; sounding, 1080 fm; wind, 280°, force 2; weather, clear; sea, slight; wire angle, 02°. 85.45

0	13.9	33.31	0	13.9	33.31	24.92	304	0.00
10	13.12	33.32	10	13.12	33.32	25.09	288	0.03
31	12.82	33.31	20	12.96	33.31	25.11	286	0.06
41	12.72	33.35	30	12.83	33.31	25.14	283	0.09
50	12.25	33.34	50	12.25	33.34	25.27	271	0.14
60	11.30	33.35	75	10.62	33.46	25.66	234	0.20
70	10.72	33.41	100	10.15	33.72	25.94	207	0.26
81	10.52	33.52	150	9.31	34.05	26.34	169	0.35
91	10.32	33.61	200	8.58	34.07	26.48	156	0.43
100	10.15	33.72	250	8.20	34.20	26.64	141	0.51
125	9.54	33.74	300	7.84	34.24	26.72	133	0.58
154	9.27	34.06	400	7.13	34.27	26.85	121	0.71
204	8.52	34.07	500	6.49	34.31	26.97	110	0.84
264	8.11	34.22	600	5.75	34.34	27.08	99	0.95
369	7.34	34.26						
491	6.55	34.31						
618	5.60	34.35						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

85.55

CREST; February 7, 1954; 0143 GCT; 33°26.5'N, 120°12.5'W; sounding, 700 fm; wind, 290°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

0	13.8	33.31	0	13.8	33.31	24.94	302	0.00
11	13.72	33.29	10	13.74	33.29	24.94	302	0.03
31	13.14	33.30	20	13.50	33.29	24.99	298	0.06
41	12.66	33.29	30	13.18	33.30	25.06	291	0.09
51	11.83	33.38	50	11.93	33.37	25.35	263	0.14
61	10.92	33.40	75	10.34	33.48	25.73	227	0.20
71	10.60	33.46	100	9.72	33.58	25.91	210	0.26
82	9.88	33.51	150	8.60	33.92	26.35	168	0.36
92	9.82	33.56	200	8.07	34.07	26.55	149	0.44
102	9.68	33.48u	250	7.86	34.20	26.69	136	0.51
126	9.03	33.71	300	7.61	34.22	26.73	132	0.58
156	8.51	33.95	400	7.00	34.22	26.83	123	0.71
205	8.04	34.09	500	6.30	34.25	26.94	112	0.84
265	7.80	34.21	600	5.74	34.31	27.07	100	0.95
372	7.18	34.22						
493	6.32	34.25						
622	5.61	34.33						

87.40

CREST; February 8, 1954; 0249 GCT; 33°40.5'N, 118°58.5'W; sounding, 500 fm; wind, 320°, force 1; weather, clear; sea, slight; wire angle, 02°.

0	14.8	33.32	0	14.8	33.32	24.74	321	0.00
11	14.24	33.39	10	14.26	33.39	24.91	305	0.03
31	13.69	33.39	20	14.01	33.39	24.96	300	0.06
42	13.29	33.35	30	13.72	33.39	25.03	294	0.09
52	12.00	33.28	50	12.24	33.29	25.24	274	0.15
62	11.20	33.27	75	10.84	33.45	25.62	238	0.21
73	10.90	33.39	100	10.27	33.63	25.86	215	0.26
83	10.54	33.61	150	9.52	33.97	26.25	178	0.36
93	10.36	33.63	200	8.80	34.09	26.46	158	0.45
102	10.24	33.63	250	8.27	34.16	26.60	145	0.53
127	9.76	33.86	300	7.80	34.24	26.73	132	0.60
156	9.46	33.99	400	6.98	34.31	26.90	116	0.73
205	8.73	34.10	500	6.32	34.29	26.98	109	0.85
264	8.12	34.18	600	5.72	34.36	27.10	97	0.96
370	7.20	34.32						
492	6.37	34.29						
620	5.60	34.39						

87.50

CREST; February 7, 1954; 2110 GCT; 33°20'N, 119°39'W; sounding, 40 fm; wind, 060°, force 1; weather, clear; sea, slight; wire angle, 04°.

0	14.02	33.30	0	14.02	33.30	24.89	307	0.00
10	13.46	33.30	10	13.46	33.30	25.01	296	0.03
15	13.20	33.31	20	13.14	33.34	25.10	287	0.06
21	13.12	33.34	30	12.52	33.35	25.24	274	0.09
26	13.00	33.34	50	11.51	33.42	25.47	252	0.14
31	12.39	33.35						
36	11.91	33.42						
41	11.72	33.42						
52	11.44	33.42						
62	10.84	33.58						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; February 7, 1954; 0805 GCT; 33°00'N, 120°21'W; sounding, 340 fm; wind, 300°, force 1; weather, clear; sea, moderate; wire angle, 00°. 87.60

0	14.0	33.17	0	14.0	33.17	24.80	316	0.00
11	13.84	33.12	10	13.86	33.12	24.79	317	0.03
31	13.83	33.12	20	13.84	33.12	24.79	317	0.06
41	13.36	33.12	30	13.83	33.12	24.80	316	0.10
52	12.86	33.26	50	12.93	33.26	25.08	289	0.16
62	12.62	33.22	75	10.62	33.13	25.41	258	0.22
72	11.02	33.13	100	9.44	33.43	25.84	217	0.28
82	10.05	33.22	150	8.37	33.93	26.40	164	0.38
92	9.68	33.32	200	7.59	34.01	26.58	146	0.45
102	9.39	33.46	250	7.22	34.09	26.69	136	0.53
122	8.96	33.68	300	6.89	34.16	26.80	126	0.59
146	8.44	33.93	400	6.27	34.22	26.92	114	0.72
166	8.06	33.94	500	5.85	34.21	26.96	110	0.84
206	7.54	34.02						
286	6.99	34.14						
392	6.30	34.22						
514	5.80	34.21						

CREST; February 8, 1954; 1129 GCT; 33°28.5'N, 117°47'W; sounding, 160 fm; wind, 020°, force 1; weather, clear; sea, slight; wire angle, 00°. 90.28

0	14.16	33.30	0	14.16	33.30	24.86	310	0.00
11	14.16	33.30	10	14.16	33.30	24.86	310	0.03
16	14.06	33.29	20	13.83	33.31	24.93	303	0.06
21	13.74	33.31	30	12.45	33.30	25.21	277	0.09
26	13.10	33.30	50	11.32	33.41	25.50	249	0.14
31	12.34	33.30						
37	12.08	33.34						
42	11.72	33.38						
52	11.24	33.41						

CREST; February 9, 1954; 2022 GCT; 33°11'N, 118°23.5'W; sounding, 650 fm; wind, 120°, force 3; weather, overcast; sea, moderate; wire angle, 10°. 90.37

0	14.9	33.34	0	14.9	33.34	24.73	322	0.00
10	14.16	33.30	10	14.16	33.30	24.86	310	0.03
29	13.15	33.31	20	13.63	33.30	24.96	300	0.06
45	11.90	33.33	30	13.10	33.31	25.09	288	0.09
55	11.22	33.39	50	11.51	33.35	25.42	257	0.15
65	11.00	33.44	75	10.78	33.52	25.68	232	0.20
75	10.78	33.52	100	10.42	33.67	25.87	214	0.26
85	10.56	33.57	150	9.82	33.95	26.18	184	0.36
99	10.42	33.67	200	9.36	34.11	26.38	166	0.45
108	10.26	33.68	250	8.63	34.14	26.52	152	0.53
134	9.92	33.85	300	8.06	34.16	26.63	142	0.61
163	9.73	34.01	400	7.20	34.24	26.82	124	0.74
216	9.16	34.13	500	6.31	34.30	26.99	108	0.87
280	8.24	34.15	600	5.68	34.33	27.08	99	0.98
394	7.25	34.24						
524	6.14	34.31						
661	5.38	34.35						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

90.55 CREST; February 10, 1954; 0529 GCT; 32°35'N, 119°37'W; sounding, 650 fm; wind, 260°, force 2; weather, overcast; sea, slight; wire angle, 05°.

0	14.82r	-	0	(14.18)	(33.33)	(24.88)	(308)	(0.00)
11	14.06	33.33	10	(14.10)	(33.33)	(24.90)	(306)	(0.03)
26	13.48	33.31	20	13.68	33.32	24.98	299	0.06
52	12.39	33.25	30	13.33	33.30	25.04	293	0.09
62	11.15	33.23	50	12.50	33.26	25.16	281	0.15
72	10.79	33.22	75	10.56	33.22	25.49	250	0.21
82	9.92	33.32	100	9.39	33.47	25.88	213	0.27
103	9.35	33.50	150	8.64	33.89	26.32	171	0.36
127	9.14	33.72	200	8.19	34.05	26.52	152	0.45
157	8.55	33.92	250	7.72	34.12	26.65	140	0.52
181	8.42	33.94	300	7.43	34.18	26.73	132	0.59
206	8.12	34.07	400	6.82	34.25	26.87	119	0.72
274	7.56	34.15	500	6.17	34.29	27.00	107	0.84
328	7.30	34.20	600	5.61	34.35	27.11	96	0.95
516	6.08	34.30	700	5.12	34.40	27.21	87	1.05
727	5.00	34.41	800	4.71	34.43	27.28	80	1.14
1053	3.86	34.49	1000	4.02	34.48	27.39	70	1.31

90.70 CREST; February 10, 1954; 1423, 1618 GCT; 32°05'N, 120°38.5'W; sounding, 2100 fm; wind, 320°, [a] force 2; weather, overcast; sea, moderate; wire angle, 05°, 05°.

0	14.0	33.10	0	14.0	33.10	24.73	372	0.00
10	13.92	33.09	10	13.92	33.09	24.75	320	0.03
26	13.60	33.18	20	13.72	33.16	24.84	312	0.06
52	13.05	33.14	30	13.53	33.18	24.90	306	0.09
62	12.20	33.04	50	13.13	33.15	24.95	301	0.16
72	11.35	33.12	75	11.03	33.12	25.32	266	0.22
80	10.52	33.12	100	9.69	33.30	25.70	230	0.28
102	9.61	33.33	150	8.73	33.82	26.26	177	0.39
126	8.98	33.59	200	7.98	34.04	26.54	150	0.47
156	8.68	33.87	250	7.41	34.06	26.64	141	0.54
205	7.90	34.04	300	6.98	34.08	26.71	134	0.61
274	7.20	34.06	400	6.15	34.20	26.92	114	0.74
380	6.28	34.19	500	5.56	34.23	27.03	104	0.86
509	5.53	34.32u	600	5.17	34.30	27.12	95	0.96
694	4.90	34.46u	700	4.89	34.40	27.24	84	1.06
923	4.14	34.44	800	4.54	34.45	27.32	76	1.15
1234	3.32	34.52	1000	3.96	34.45	27.38	71	1.31
			1200	3.42	34.52	27.48	61	1.46
0[b]	14.0	-	1500	2.83	34.54	27.56	54	1.66
488	5.64	34.22	2000	2.11	34.63	27.69	42	1.95
544	5.40	34.25						
602	5.15	34.30						
672	4.98	34.38						
746	4.74	34.41						
832	4.43	34.45						
922	4.19	34.45						
1022	3.90	34.45						
1138	3.60	34.53						
1268	3.30	34.51						
1409	3.01	34.52						
1571	2.68	34.56						
1753	2.34	34.72u						
1956	2.13	34.63						
2181	2.00	34.63						
2431	1.85	34.66						

a) Wind, 070°, force 2, on second cast.
b) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; February 11, 1954; 2220 GCT; 32°52'N, 117°33.5'W; sounding, 500 fm; wind, 300°, force 3; weather, partly cloudy; sea, slight; wire angle, 12°. 93.30

0	15.7	33.33	0	15.7	33.33	24.56	339	0.00
10	14.65	33.39	10	14.65	33.39	24.83	313	0.03
30	13.95	33.34	20	14.31	33.36	24.88	308	0.06
40	13.55	33.31	30	13.95	33.34	24.93	303	0.09
50	12.30	33.34	50	12.30	33.34	25.26	272	0.15
60	11.72	33.36	75	11.00	33.46	25.60	240	0.21
70	11.16	33.42	100	10.49	33.72	25.89	212	0.27
79	10.88	33.49	150	9.82	33.95	26.18	184	0.37
88	10.50	33.60	200	9.31	34.16	26.43	161	0.46
98	10.50	33.72	250	8.96	34.25	26.56	148	0.54
122	10.07	33.77	300	8.06	34.21	26.67	138	0.61
151	9.80	33.96	400	7.00	34.19	26.80	125	0.75
198	9.32	34.16	500	6.36	34.26	26.94	112	0.88
255	8.90	34.25	600	5.76	34.31	27.06	101	0.99
358	7.34	34.16						
477	6.50	34.25a)						
605	5.72	34.31						

CREST; February 11, 1954; 1132 GCT; 32°13'N, 118°55'W; sounding, 620 fm; wind, 320°, force 1; weather, overcast; sea, slight; wire angle, 02°. 93.50

0	14.7	33.40	0	14.7	33.40	24.83	313	0.00
10	14.62	33.40	10	14.62	33.40	24.84	312	0.03
31	13.83	33.39	20	14.25	33.40	24.92	304	0.06
41	13.40	33.33	30	13.87	33.39	24.99	298	0.09
51	12.88	33.30	50	12.93	33.30	25.11	286	0.15
62	11.46	33.26	75	10.48	33.35	25.61	239	0.21
71	10.82	33.30	100	9.88	33.68	25.96	205	0.27
81	10.16	33.47	150	8.92	34.01	26.38	166	0.36
92	10.03	33.64	200	8.46	34.17	26.58	146	0.44
101	9.87	33.68	250	8.24	34.26	26.67	138	0.51
126	9.05	33.84	300	7.69	34.28	26.78	128	0.58
156	8.88	34.04	400	6.76	34.32	26.94	112	0.71
206	8.43	34.18	500	6.18	34.36	27.05	102	0.82
266	8.14	34.27	600	5.62	34.39	27.13	94	0.93
371	6.94	34.30						
493	6.22	34.36						
621	5.50	34.40						

CREST; February 12, 1954; 0936 GCT; 31°56'N, 117°50'W; sounding, 650 fm; wind, 270°, force 1; weather, overcast; sea, slight; wire angle, 01°. 97.40

0	15.2	33.35	0	15.2	33.35	24.68	327	0.00
11	14.77	33.40	10	14.78	33.39	24.80	316	0.03
31	14.30	33.35	20	14.56	33.39	24.85	311	0.06
41	13.71	33.31	30	14.33	33.35	24.87	309	0.09
52	13.30	33.30	50	13.36	33.30	25.03	294	0.15
62	13.06	33.22	75	11.47	33.23	25.33	265	0.22
72	11.85	33.22	100	10.26	33.38	25.66	234	0.28
81	10.80	33.26	150	9.47	33.86	26.17	185	0.39
91	10.42	33.37	200	9.47	34.25	26.48	156	0.48
101	10.24	33.38	250	8.88	34.22	26.54	150	0.55
126	9.52	33.64	300	7.85	34.18	26.67	138	0.63
156	9.48	33.91	400	6.72	34.17	26.83	123	0.76
205	9.46	34.25	500	6.23	34.28	26.98	109	0.89
266	8.52	34.22	600	5.78	34.32	27.07	100	1.00
371	6.90	34.16						
491	6.28	34.27						
619	5.70	34.33						

a) Alternate value, 34.34‰, not used in interpolation.

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

97.60

CREST; February 12, 1954; 1913 GCT; 31°14.5'N, 119°12'W; sounding, 2000 fm; wind, calm; weather, cloudy; sea, slight; wire angle, 00°.

0	15.5	33.52	0	15.5	33.52	24.74	321	0.00
11	14.15	33.45	10	14.17	33.46	24.99	298	0.03
33	13.54	33.60	20	13.94	33.50	25.07	290	0.06
43	12.55	33.67	30	13.67	33.57	25.18	280	0.08
52	11.23	33.69	50	11.54	33.69	25.68	232	0.14
63	9.81	33.67	75	9.10	33.79	26.17	185	0.19
72	9.16	33.80	100	8.68	33.85	26.29	174	0.23
83	9.01	33.77	150	8.17	34.04	26.52	152	0.31
93	8.74	33.79	200	7.68	34.17	26.69	136	0.38
102	8.67	33.87	250	7.28	34.21	26.78	128	0.45
127	8.38	33.99	300	6.93	34.25	26.86	120	0.52
156	8.11	34.06	400	6.28	34.30	26.99	108	0.64
206	7.63	34.18	500	5.60	34.29	27.07	100	0.75
265	7.18	34.22	600	5.17	34.38	27.19	89	0.85
371	6.50	34.30						
493	5.63	34.29						
621	5.10	34.42						

100.29

CREST; February 14, 1954; 0720 GCT; 31°42'N, 116°43.5'W; sounding, 100 fm; wind, 160°, force 6; weather, rain; sea, rough; wire angle, 07°.

0	14.00	33.35	0	14.00	33.35	24.93	303	0.00
10	14.02	33.36	10	14.02	33.36	24.94	302	0.03
15	14.02	33.38	20	13.98	33.36	24.94	302	0.06
20	13.98	33.36	30	12.78	33.37	25.20	278	0.09
25	13.76	33.37	50	12.00	33.40	25.36	262	0.14
30	12.78	33.37						
36	12.63	33.34						
41	12.18	33.40						
51	12.00	33.40						

100.50

CREST; February 13, 1954; 1956 GCT; 30°57'N, 118°06'W; sounding, 760 fm; wind, 170°, force 4; weather, cloudy; sea, rough; wire angle, 25°.

0	14.3	33.12	0	14.3	33.12	24.69	326	0.00
9	14.14	33.14	10	14.03	33.13	24.77	319	0.03
23	13.41	33.04	20	13.47	33.05	24.81	315	0.06
46	13.64	33.33	30	13.48	33.09	24.84	312	0.10
54	13.61	33.44	50	13.64	33.42	25.05	292	0.16
63	11.59	33.18	75	10.70	33.25	25.49	250	0.22
72	10.89	33.22	100	9.55	33.49	25.87	214	0.28
90	9.88	33.39	150	8.50	33.85	26.31	172	0.37
111	9.24	33.59	200	7.86	34.02	26.54	150	0.46
135	8.71	33.78	250	7.41	34.10	26.67	138	0.53
177	8.18	33.95	300	7.18	34.17	26.75	130	0.60
235	7.50	34.08	400	6.55	34.27	26.92	114	0.73
322	7.04	34.19	500	6.00	34.31	27.03	104	0.84
432	6.36	34.29	600	5.49	34.35	27.12	95	0.95
591	5.52	34.34	700	5.03	34.39	27.21	87	1.05
790	4.66	34.42	800	4.62	34.42	27.28	80	1.14
1080	3.80	34.51	1000	4.01	34.49	27.40	69	1.30

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

CREST; February 13, 1954; 0943 GCT; 30°20'N, 119°26'W; sounding, 2100 fm; wind, 160°, force 4; weather, partly cloudy; sea, moderate; wire angle, 14°. 100.70

0	14.9	33.22	0	14.9	33.22	24.64	331	0.00
10	14.74	33.21	10	14.74	33.21	24.67	328	0.03
25	14.54	33.25	20	14.60	33.23	24.71	324	0.07
55	14.18	33.30	30	14.49	33.26	24.76	320	0.10
65	13.97	33.25	50	14.26	33.30	24.84	312	0.16
74	13.52	33.22	75	13.50	33.22	24.94	302	0.23
89	13.12	33.18	100	12.11	33.18	25.18	280	0.31
108	11.52	33.19	150	10.37	33.76	25.94	207	0.43
133	10.73	33.55	200	9.59	33.98	26.25	178	0.53
161	10.18	33.83	250	8.52	34.10	26.51	153	0.61
214	9.36	34.02	300	7.82	34.16	26.66	139	0.69
290	7.92	34.15	400	7.10	34.18	26.78	128	0.82
394	7.14	34.18	500	6.47	34.25	26.92	114	0.95
535	6.22	34.27	600	5.73	34.31	27.06	101	1.07
726	5.03	34.37	700	5.15	34.36	27.18	90	1.17
965	4.18	34.43	800	4.73	34.39	27.24	84	1.27
1277	3.34	34.52	1000	4.07	34.44	27.36	73	1.44

HORIZON; February 16, 1954; 0313 GCT; 31°06'N, 116°25.5'W; sounding, 40 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 12°. 103.30

0	14.19	33.28	0	14.19	33.28	24.84	312	0.00
10	14.19	33.27	10	14.19	33.27	24.83	313	0.03
15	14.18	33.28	20	13.90	33.28	24.90	306	0.06
20	13.90	33.28	30	12.36	33.30	25.22	276	0.09
25	13.14	33.29	50	11.34				
30	12.36	33.30						
35	11.66	-						
40	11.64	-						
50	11.34	-						
61	10.58	-						

HORIZON; February 15, 1954; 2133 GCT; 30°46'N, 117°05'W; sounding, 1000 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 13°. 103.40

0	-	33.24	0	(14.45)	33.24	(24.75)	(320)	(0.00)
10	14.40	33.28	10	14.40	33.28	24.80	316	0.03
25	14.27	33.27	20	14.30	33.28	24.82	314	0.06
30	14.25	33.24	30	14.25	33.24	24.80	316	0.10
35	13.90	33.25	50	13.15	33.26	25.04	293	0.16
40	13.52	33.27	75	10.66	33.24	25.49	250	0.22
45	13.42	33.27	100	9.89	33.39	25.74	226	0.28
50	13.15	33.26	150	8.72	33.82	26.26	177	0.39
75	10.66	33.24	200	8.14	33.97	26.47	157	0.47
120	9.40	33.57	250	7.97	34.11	26.60	145	0.55
149	8.77	33.82	300	8.02	34.25	26.70	135	0.62
179	8.32	33.91	400	6.62	34.21	26.87	119	0.75
238	7.98	34.07	500	5.99	34.27	27.00	107	0.87
309	8.01	34.26	600	5.15	34.33	27.15	92	0.98
428	6.34	34.21	700	5.02	34.39	27.21	87	1.08
569	5.68	34.31						
710	4.99	34.39						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

103.60

HORIZON; February 15, 1954; 0552 GCT; 30°07'N, 118°26'W; sounding, 1900 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 36°. [a]

0	-	33.36	0	(15.22)	33.36	(24.68)	(327)	(0.00)
8	15.21	33.27	10	15.21	33.26	24.61	334	0.03
25	15.17	33.25	20	15.19	33.26	24.61	334	0.07
47	15.10	33.24	30	15.18	33.24	24.60	335	0.10
			50	(15.05)	(33.25)	(24.63)	(332)	(0.17)

107.35

HORIZON; February 14, 1954; 1205 GCT; 30°21'N, 116°22'W; sounding, 1000 fm; wind, 270°, force 5; weather, rain showers; sea, moderate; wire angle, 27°.

0	15.04	33.32	0	15.04	33.32	24.69	326	0.00
8	15.02	33.32	10	15.02	33.32	24.69	326	0.03
19	14.97	33.31	20	14.98	33.30	24.69	326	0.06
23	14.52	33.29	30	14.09	33.34	24.91	305	0.10
27	14.14	33.24	50	13.82	33.21	24.86	310	0.16
53	13.78	33.21	75	12.50	33.24	25.15	282	0.23
70	13.34	33.30	100	10.77	33.29	25.51	248	0.30
81	11.78	33.18	150	9.30	33.73	26.10	192	0.41
90	11.30	33.22	200	8.80	34.06	26.43	161	0.50
100	10.77	33.29	250	8.22	34.28	26.70	135	0.58
123	9.88	33.57	300	8.02	34.32	26.80	126	0.64
145	9.50	33.69	400	7.40	34.34	26.86	120	0.77
190	8.92	33.99	500	6.59	34.34	26.98	109	0.90
244	8.29	34.27	600	6.10	34.35	27.05	102	1.01
342	7.87	34.33	700	(5.64)	(34.36)	(27.11)	(96)	(1.12)
464	6.80	34.34						
698	5.65	34.36						

107.50

HORIZON; February 14, 1954; 2100 GCT; 29°50.5'N, 117°24'W; sounding, 1500 fm; wind, 300°, force 4; weather, partly cloudy; sea, rough; wire angle, 08°.

0	15.69	33.42	0	15.69	33.42	24.62	333	0.00
11	15.62	33.42	10	15.63	33.42	24.64	331	0.03
31	15.00	33.44	20	15.50	33.43	24.67	328	0.07
46	14.06	33.31	30	15.09	33.44	24.77	319	0.10
61	13.36	33.29	50	13.81	33.30	24.93	303	0.16
71	12.52	33.23	75	12.34	33.27	25.20	278	0.23
81	12.09	33.30	100	10.10	33.26	25.60	240	0.30
96	10.47	33.26	150	8.59	33.83	26.29	174	0.40
106	9.84	33.30	200	8.58	34.01	26.43	161	0.49
121	9.35	33.51	250	8.84	34.29	26.61	144	0.57
151	8.55	33.84	300	8.37	34.34	26.72	133	0.64
180	8.46	33.92	400	6.87	34.30	26.91	115	0.77
240	8.86	34.27	500	6.13	34.31	27.01	106	0.89
310	8.23	34.34	600	5.62	34.35	27.11	96	0.99
431	6.56	34.29	700	5.10	34.39	27.20	88	1.09
572	5.78	34.34						
715	5.02	34.40						

a) The following temperature values were obtained for Station 103.60 from two additional casts made to collect water samples for a special manganese study: at 0834 GCT (wire angle, 27°), 59 m, 14.95; 104, 12.42; 150, 9.66; 308, 7.10°C and at 0950 GCT (wire angle, 32°), 190 m, 8.82; 377, 6.88; 484, 6.24; 932, 4.18; 1419, 2.94°C.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; February 14, 1954; 0522 GCT; 29°51'N, 115°52.5'W; sounding, 55 fm; wind, 180°, force 2; weather, clear; sea, moderate; wire angle, 03°. 110.33

0	14.28	33.29	0	14.28	33.29	24.83	313	0.00
16	13.88	33.29	10	14.00	33.29	24.89	307	0.03
26	13.34	33.30	20	13.65	33.29	24.96	300	0.06
30	13.20	33.30	30	13.20	33.30	25.06	291	0.09
36	12.42	33.21	50	11.62	33.27	25.34	264	0.15
42	11.71	33.20	75	11.22	33.46	25.56	243	0.21
47	11.57	33.22						
57	11.88	33.40						
63	11.72	33.41						
73	11.28	33.45						
83	11.05	33.50						

HORIZON; February 14, 1954; 0128 GCT; 29°42'N, 116°10.5'W; sounding, 1350 fm; wind, 220°, force 3; weather, partly cloudy; sea, moderate; wire angle, 11°. 110.40

0	15.62	33.42	0	15.62	33.42	24.64	331	0.00
10	15.52	33.42	10	15.52	33.42	24.66	329	0.03
25	15.36	33.48	20	15.41	33.47	24.72	323	0.07
50	15.08	33.42	30	15.31	33.48	24.75	320	0.10
60	14.58	33.32	50	15.08	33.42	24.76	320	0.16
70	14.18	33.34	75	13.50	33.28	24.98	299	0.24
80	12.87	33.22	100	11.80	33.26	25.30	268	0.31
100	11.80	33.26	150	9.63	33.64	25.97	204	0.43
124	10.13	33.46	200	9.18	34.10	26.41	163	0.52
154	9.59	33.68	250	8.80	34.28	26.61	144	0.60
203	9.14	34.11	300	8.47	34.32	26.69	136	0.68
274	8.64	34.31	400	7.62	34.34	26.83	123	0.81
378	7.84	34.33	500	6.65	34.35	26.98	109	0.93
507	6.60	34.35	600	5.93	34.37	27.09	98	1.04
691	5.34	34.39	700	5.30	34.40	27.19	89	1.15
918	4.25	34.47	800	4.77	34.44	27.28	80	1.24
1230	3.37	34.52	1000	3.98	34.49	27.40	69	1.41

HORIZON; February 13, 1954; 1224 GCT; 29°04'N, 117°43'W; sounding, 1700 fm; wind, 140°, force 1; weather, clear; sea, slight; wire angle, 03°.[a] 110.60

0	15.44	33.40	0	15.44	33.40	24.66	329	0.00
11	15.44	33.42	10	15.44	33.42	24.68	327	0.03
31	-	33.40	20	15.40	33.41	24.68	327	0.07
41	15.04	33.40	30	15.28	33.40	24.70	325	0.10
52	14.72	33.41	50	14.80	33.41	24.81	315	0.16
62	14.24	33.28	75	13.80	33.27	24.91	305	0.24
72	13.98	33.28	100	11.10	33.23	25.40	259	0.31
82	13.24	33.22	150	9.56	33.77	26.09	193	0.43
92	11.78	33.25	200	8.92	34.08	26.43	161	0.52
102	11.00	33.23	250	8.65	34.24	26.60	145	0.59
127	10.00	33.54	300	8.14	34.23	26.67	138	0.67
157	9.45	33.82	400	6.75	34.17	26.82	124	0.80
207	8.88	34.11	500	6.21	34.16	26.88	118	0.93
267	8.54	34.25	600	5.70	34.30	27.06	101	1.05
372	6.92	34.18						
494	6.24	34.16						
623	5.59	34.35						

a) The following temperature values were obtained for Station 110.60 from two additional overlapping casts made to collect water samples for a special manganese study: at 1326 GCT (wire angle, 06°), 160 m, 9.37; 313, 7.66°C and at 1834 GCT (wire angle, 06°), 213 m, 8.96; 513, 6.57; 614, 5.68; 1020, 4.12°C.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3^5}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

113.35

HORIZON; February 12, 1954; 1535 GCT; 29°09.5'N, 115°42'W; sounding, 690 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 13°.

0	15.07	33.56	0	15.07	33.56	24.87	309	0.00
10	15.07	33.55	10	15.07	33.55	24.86	310	0.03
35	14.96	33.57	20	15.04	33.56	24.87	309	0.06
40	14.04	33.53	30	15.00	33.57	24.89	307	0.09
45	12.89	33.39	50	12.49	33.39	25.27	271	0.15
64	11.62	33.44	75	10.35	33.45	25.70	230	0.21
74	10.48	33.45	100	10.33	33.76	25.95	206	0.27
84	10.28	33.54	150	8.91	34.00	26.37	166	0.36
98	10.34	33.75	200	9.43	34.37	26.58	146	0.44
108	10.27	33.82	250	8.43	34.29	26.67	138	0.52
132	9.85	33.97	300	8.00	34.26	26.71	134	0.59
160	8.79	34.02	400	7.78	34.40	26.86	120	0.72
213	9.48	34.37	500	6.71	34.43	27.03	104	0.84
276	8.05	34.25	600	5.95	34.46	27.15	92	0.94
388	7.88	34.39						
517	6.58	34.43						
653	5.60	34.49						

113.50

HORIZON; February 12-13, 1954; 2352, 0117 GCT; 28°47'N, 116°38'W; sounding, 2000 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 20°, 28°.

0	16.24	33.57	0	16.24	33.57	24.61	334	0.00
10	16.19	33.54	10	16.19	33.54	24.60	335	0.03
29	16.1	33.57	20	16.09	33.56	24.64	331	0.07
44	16.02	33.50	30	16.08	33.57	24.65	330	0.10
53	15.97	33.51	50	15.99	33.51	24.63	332	0.17
63	15.93	33.52	75	15.20	33.49	24.79	317	0.25
72	15.30	33.48	100	12.27	33.21	25.17	280	0.32
81	15.06	33.50	150	10.18	33.65	25.89	212	0.45
95	13.08	33.31	200	9.18	33.93	26.27	176	0.55
104	12.06	33.20	250	8.70	34.12	26.50	154	0.63
127	11.46	33.49	300	8.48	34.25	26.63	142	0.71
153	10.07	33.68	400	7.69	34.33	26.81	125	0.85
203	9.13	33.95	500	6.45	34.34	26.99	108	0.97
263	8.61	34.16	600	5.58	34.34	27.11	96	1.08
372	8.04	34.34	700	5.20	34.43	27.22	86	1.18
498	6.54	34.34	800	4.81	34.44	27.27	81	1.27
633	5.42	34.40	1000	4.06	34.50	27.40	69	1.44
			1200	3.57	34.52	27.47	62	1.58
0a)	16.20	33.50	1500	2.88	34.57	27.57	53	1.78
438	7.12	34.32	2000	2.10	34.63	27.69	41	2.07
495	6.47	-						
552	5.96	34.32						
617	5.49	34.35						
688	5.24	34.43						
768	4.93	34.43						
854	4.62	34.50						
951	4.21	34.52						
1061	3.90	34.48						
1187	3.60	34.51						
1323	3.24	34.56						
1478	2.91	34.57						
1653	2.60	34.62						
1849	2.30	34.62						
2068	2.05	34.63						
2309	1.92	34.68						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

HORIZON; February 11, 1954; 1712 GCT; 28°47.5'N, 114°56'W; sounding, 40 fm; 117.30
wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

0	15.31	33.53	0	15.31	33.53	24.79	317	0.00
10	15.29	33.50	10	15.29	33.50	24.77	319	0.03
26	15.18	33.69	20	15.26	33.63	24.88	308	0.06
31	14.44	33.62	30	14.63	33.64	25.02	295	0.09
36	13.46	33.54	50	12.50	33.47	25.33	265	0.15
41	12.80	33.38						
47	12.63	33.39						
52	12.34	33.48						
62	11.44	33.47						
72	11.32	33.45						

HORIZON; February 11, 1954; 1050 GCT; 28°28'N, 115°36.5'W; sounding, 130 fm; 117.40
wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 06°.

0	15.72	0	15.72
10	15.71	10	15.71
26	15.59	20	15.63
52	15.31	30	15.58
57	15.12	50	15.38
62	14.78	75	12.71
67	13.83	100	11.01
72	13.00		
77	12.60		
82	12.36		
92	11.32		
102	10.96		

HORIZON; February 10, 1954; 2323 GCT; 27°46'N, 116°55'W; sounding, 2000 fm; 117.60
wind, 320°, force 1; weather, overcast; sea, slight; wire angle, 00°.

0	–	33.44	0	(16.13)	33.44	(24.54)	(340)	(0.00)
10	16.12	33.45	10	16.12	33.45	24.55	340	0.03
31	16.07	33.46	20	16.10	33.46	24.56	339	0.07
41	16.02	33.47	30	16.08	33.46	24.57	338	0.10
51	15.84	33.45	50	15.88	33.45	24.60	335	0.17
62	15.84	33.45	75	15.93	33.49	24.62	333	0.25
72	15.93	33.49	100	13.62	33.32	24.99	298	0.33
82	15.30	33.47	150	11.50	33.74	25.72	228	0.46
92	14.61	33.44	200	10.49	34.07	26.16	186	0.57
102	13.38	33.32	250	9.57	34.21	26.43	161	0.66
127	12.08	33.42	300	8.72	34.27	26.61	144	0.74
157	11.36	33.80	400	7.64	34.36	26.85	121	0.88
207	10.36	34.10	500	7.00	34.39	26.96	110	1.00
267	9.29	34.23	600	6.15	34.37	27.06	101	1.11
372	7.84	34.34						
494	7.06	34.39						
621	5.94	34.36						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m
120.25	HORIZON; February 9, 1954; 0339, 0350 GCT; 28°22.5'N, 114°15'W; sounding, 24 fm; wind, 320°, force 4; weather, missing; sea, slight; wire angle, 05°, 05°.							
0	15.80	33.60	0	15.80	33.60	24.74	321	0.00
10	15.78	33.69	10	15.78	33.69	24.81	315	0.03
16	15.61	33.60	20	15.60	33.59	24.77	319	0.06
			30	14.61	33.48	24.91	305	0.10
21	15.56	33.58						
26	14.84	33.49						
31	14.60	33.48						
36	14.76	33.53						
41	13.88	33.56						
120.35	HORIZON; February 9, 1954; 0817 GCT; 28°03'N, 114°51'W; sounding, 42 fm; wind, calm; weather, missing; sea, slight; wire angle, 00°.							
0	16.00	33.64	0	16.00	33.64	24.72	323	0.00
16	15.65	-	10	15.72	33.63	24.78	318	0.03
26	15.66	33.63	20	15.67	33.63	24.79	317	0.06
37	15.66	33.63	30	15.66	33.63	24.79	317	0.10
42	15.64	33.66						
120.50	HORIZON; February 9, 1954; 1815 GCT; 27°32.5'N, 115°51'W; sounding, 2150 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 10°.							
0	-	33.64	0	(16.12)	33.64	(24.70)	(325)	(0.00)
11	16.13	33.65	10	16.13	33.65	24.70	325	0.03
26	16.15	33.73	20	16.14	33.68	24.72	323	0.06
31	16.22	33.77	30	16.21	33.77	24.77	319	0.10
36	15.65	33.67	50	14.21	33.48	24.99	298	0.16
51	14.00	33.48	75	11.61	33.48	25.50	249	0.23
81	11.46	33.49	100	11.32	33.80	25.80	221	0.29
100	11.32	33.80	150	10.99	34.22	26.19	184	0.39
125	11.68	34.22	200	9.90	34.27	26.42	162	0.48
155	10.82	34.22	250	9.30	34.32	26.56	148	0.56
203	9.84	34.28	300	8.95	34.35	26.64	141	0.63
270	9.14	34.33	400	8.08	34.42	26.83	123	0.77
374	8.37	34.42	500	6.89	34.41	26.99	108	0.89
502	6.86	34.41	600	5.93	34.41	27.12	95	1.00
686	5.38	34.42	700	5.28	34.42	27.20	88	1.10
911	4.33	34.47	800	4.79	34.44	27.28	80	1.19
1221	3.45	34.52	1000	4.05	34.49	27.40	69	1.36

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; February 10, 1954; 0440 GCT; 26°52'N, 117°10.5'W; sounding, 1750 fm; wind, 320°, force 3; weather, missing; sea, slight; wire angle, 12°.[a] 120.70

0	16.16	33.45	0	16.16	33.45	24.54	340	0.00
10	15.85	33.46	10	15.85	33.46	24.62	333	0.03
25	15.20	33.40	20	15.24	33.42	24.72	323	0.07
60	15.34	33.57	30	15.20	33.40	24.72	323	0.10
65	15.42	33.75	50	15.25	33.46	24.75	320	0.16
70	15.38	33.65	75	14.10	33.37	24.93	303	0.24
80	13.44	33.35	100	11.94	33.35	25.34	264	0.31
100	11.94	33.35	150	10.82	33.98	26.03	199	0.43
124	10.78	33.57	200	9.73	34.17	26.37	166	0.52
153	10.82	34.01	250	8.90	34.23	26.55	149	0.60
202	9.69	34.18	300	8.33	34.28	26.68	137	0.68
269	8.68	34.24	400	7.47	34.33	26.85	121	0.81
370	7.71	34.32	500	6.74	34.35	26.96	110	0.94
496	6.79	34.35	600	6.11	34.39	27.08	99	1.05
676	5.69	34.42	700	5.52	34.43	27.18	90	1.15
897	4.46	34.49	800	4.92	34.46	27.28	80	1.24
1206	3.44	34.56	1000	4.08	34.52	27.42	67	1.41

HORIZON; February 8, 1954; 0130 GCT; 27°01.5'N, 115°29.5'W; sounding, 2000 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 16°. 123.50

0	17.02	33.96	0	17.02	33.96	24.73	322	0.00
10	16.99	33.98	10	16.99	33.98	24.75	320	0.03
30	16.87	33.95	20	16.92	33.96	24.76	320	0.06
40	16.88	33.95	30	16.87	33.95	24.76	320	0.10
55	16.72	33.98	50	16.80	33.98	24.80	316	0.16
65	16.52	33.98	75	15.42	33.84	25.01	296	0.24
75	15.42	33.84	100	12.28	33.45	25.35	263	0.31
80	13.67	33.51	150	11.42	34.28	26.16	186	0.42
90	12.58	33.46	200	10.03	34.33	26.44	160	0.51
100	12.28	33.45	250	9.70	34.50	26.63	142	0.59
124	11.70	34.00	300	8.74	34.46	26.76	129	0.66
154	11.35	34.29	400	7.33	34.38	26.91	115	0.79
204	10.00	34.34	500	6.66	34.43	27.04	103	0.90
263	9.60	34.51	600	6.01	34.47	27.15	92	1.01
369	7.60	34.37						
491	6.72	34.43						
619	5.90	34.47						

a) The following temperature values were obtained for Station 120.70 from two additional overlapping casts made to collect water samples for a special manganese study: at 0545 GCT (wire angle, 05°), 11 m, 15.84; 52, 15.40; 102, 10.76; 157, 11.05; 312, 8.30°C and at 0750 GCT (wire angle, 06°), 205 m, 9.54; 404, 7.60; 605, 6.08; 1004, 4.07; 1517, 2.79°C.

SIO

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5402

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm^3/g	ΔD dyn. m

127.40

HORIZON; February 7, 1954; 1501 GCT; 26°41.5'N, 114°30.5'W; sounding, 1500 fm; wind, 340°, force 2; weather, cloudy; sea, moderate; wire angle, 15°.

0	17.53	34.09	0	17.53	34.09	24.71	324	0.00
10	17.48	34.11	10	17.48	34.11	24.74	321	0.03
30	17.49	34.14	20	17.49	34.13	24.75	320	0.06
40	17.22	34.13	30	17.49	34.14	24.76	320	0.10
50	14.56	33.62	50	14.56	33.62	25.02	295	0.16
60	13.60	33.58	75	12.21	33.66	25.53	246	0.23
69	12.90	33.63	100	11.20	33.84	25.86	215	0.28
79	12.18	33.68	150	10.39	34.20	26.28	175	0.38
89	12.07	33.79	200	10.22	34.38	26.45	159	0.47
98	11.23	33.84	250	10.07	34.51	26.58	146	0.55
122	11.09	34.02	300	9.69	34.52	26.65	140	0.62
151	10.38	34.20	400	8.20	34.50	26.87	119	0.76
200	10.22	34.38	500	7.07	34.48	27.02	105	0.88
258	10.03	34.52	600	6.29	34.45	27.10	97	0.99
361	8.78	34.51						
480	7.24	34.49						
607	6.26	34.45						

130.30

HORIZON; February 7, 1954; 0707 GCT; 26°30'N, 113°28'W; sounding, 38 fm; wind, 220°, force 1; weather, clear; sea, slight; wire angle, 04°.

0	18.41	34.38	0	18.41	34.38	24.72	323	0.00
15	18.30	-	10	18.37	34.38	24.73	322	0.03
24	18.16	34.37	20	18.23	34.38	24.76	320	0.06
29	18.08	34.36	30	18.07	34.36	24.78	318	0.10
33	18.02	34.37	50	16.50	34.28	25.10	287	0.16
43	17.34	34.33						
47	16.90	34.31						
51	16.38	34.25						
56	15.62	34.21						
67	13.44	34.02						

130.40

HORIZON; February 7, 1954; 0025 GCT; 26°19.5'N, 114°16'W; sounding, 1900 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	18.22	34.05	0	18.22	34.05	24.51	343	0.00
10	17.85	34.07	10	17.85	34.07	24.62	333	0.03
25	17.52	34.04	20	17.64	34.05	24.65	330	0.07
51	16.89	34.05	30	17.45	34.04	24.69	326	0.10
61	14.84	33.71	50	17.00	34.05	24.81	315	0.16
71	13.89	33.62	75	13.50	33.60	25.23	275	0.24
82	13.00	33.59	100	11.69	33.69	25.65	235	0.30
102	11.54	33.71	150	10.51	33.97	26.08	194	0.41
123	10.79	33.82	200	9.64	34.24	26.44	160	0.50
157	10.44	34.01	250	9.42	34.42	26.62	143	0.58
207	9.58	-	300	9.21	34.47	26.69	136	0.65
277	9.35	34.47	400	8.15	34.44	26.83	123	0.79
382	8.34	34.44	500	7.08	34.42	26.97	110	0.91
512	6.97	34.42	600	6.24	34.43	27.09	98	1.02
697	5.53	34.45	700	5.51	34.45	27.20	88	1.12
924	4.36	34.47	800	4.91	34.46	27.28	80	1.22
1237	3.56	34.52	1000	4.10	34.48	27.38	71	1.39

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

HORIZON; February 6, 1954; 0345 GCT; 25°33'N, 115°29'W; sounding, 2000 fm; wind, 320°, force 3; weather, missing; sea, moderate; wire angle, 22°.[a] 130.60

0	17.02	33.77	0	17.02	33.77	24.59	336	0.00
10	16.92	33.81	10	16.92	33.81	24.64	331	0.03
25	16.64	33.87	20	16.71	33.86	24.73	322	0.07
50	16.36	33.88	30	16.59	33.88	24.77	319	0.10
60	15.64	33.79	50	16.36	33.88	24.82	314	0.16
70	12.84	33.40	75	12.68	33.40	25.24	274	0.24
99	12.11	33.80	100	12.05	33.82	25.68	232	0.30
123	11.12	33.96	150	10.42	34.09	26.19	184	0.40
152	10.38	34.09	200	9.89	34.30	26.44	160	0.49
197	9.91	34.29	250	9.58	34.41	26.58	146	0.57
264	9.48	34.42	300	8.99	34.41	26.68	137	0.64
363	8.11	34.39	400	7.72	34.40	26.86	120	0.78
483	6.96	34.45	500	6.79	34.46	27.04	103	0.90
656	5.54	34.49	600	5.94	34.48	27.17	91	1.00
869	4.56	34.53	700	5.26	34.50	27.27	81	1.10
1167	3.68	34.55	800	4.80	34.52	27.34	74	1.18
			1000	4.10	34.54	27.43	66	1.34

HORIZON; February 5, 1954; 1213 GCT; 25°53'N, 113°11'W; sounding, 62 fm; wind, 270°, force 1; weather, clear; sea, slight; wire angle, 04°. 133.30

0	19.11	34.20	0	19.11	34.20	24.40	354	0.00
20	19.00	34.20	10	19.05	34.20	24.42	352	0.04
36	18.90	34.14	20	19.00	34.20	24.43	351	0.07
51	17.74	34.01	30	18.97	34.17	24.41	353	0.11
56	15.63	33.79	50	17.92	34.03	24.57	338	0.18
61	15.18	33.73	75	14.31	33.88	25.28	270	0.25
71	14.56	33.84	100	13.49	34.19	25.69	231	0.32
76	14.30	33.89						
81	14.31	33.96						
86	14.08	34.00						
91	13.88	34.02						
101	13.41	34.20						

HORIZON; February 5, 1954; 0027 GCT; 25°37.5'N, 112°20.5'W; sounding, 40 fm; wind, 220°, force 2; weather, partly cloudy; sea, moderate; wire angle, 02°. 137.23

0	19.35	34.34	0	19.35	34.34	24.45	349	0.00
11	18.82	34.33	10	18.88	34.33	24.56	339	0.03
21	18.52	34.32	20	18.58	34.32	24.63	332	0.07
26	18.30	34.33	30	17.80	34.25	24.77	319	0.10
31	17.65	34.22	50	15.68	34.23	25.25	273	0.16
37	16.87	34.15						
42	16.56	34.24						
47	15.96	34.22						
52	15.56	34.23						
61	15.38	34.17u						

a) The following temperature values were obatined for Station 130.60 when six additional overlapping casts were made to collect water samples for the determination of titanium, manganese and iron: at 0505 GCT (wire angle, 15°), 10 m, 17.00; 50, 17.07; 99, 12.34; 153, 10.34; 306, 8.64°C; at 0608 GCT (wire angle, 21°), 196 m, 10.17; 389, 7.94; 580, 6.14; 960, 4.21; 1444, 3.00°C; at 0735 GCT (wire angle, 11°), 10 m, 16.96; 51, 15.94; 101, 11.96; 155, 10.85; 309, 9.06°C; at 0921 GCT (wire angle, 16°), 200 m, 10.48; 398, 7.79; 595, 6.10; 987, 4.14; 1487, 2.87°C; at 1053 GCT (wire angle, 13°), 10 m, 16.88; 50, 16.59; 99, 12.12; 152, 11.30; 303, 8.47°C; at 1209 GCT (wire angle, 17°), 199 m, 10.78; 394, 7.77; 588, 6.08; 974, 4.07; 1465, 2.93°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
77.50-C	II-4	0205	35°03.5'	120°52.0'	82	270°	1	partly cloudy	moderate	12.52	33.35
80.51-C	4	0625	34°26.0'	120°33.5'	105	320°	2	partly cloudy	moderate	13.62	33.30
80.60-C	4	1140	34°09.0'	121°09.0'	1200	300°	4	clear	moderate	12.98	33.22
80.80-C	4	2125	33°29.0'	122°32.0'	2200	320°	5	clear	rough	12.98	33.01
83.40-C	5	2245	34°14.0'	119°22.0'	12	260°	3	partly cloudy	slight	13.49	33.31
83.48-C	5	1420	33°58.0'	119°55.0'	100	310°	1	clear	slight	12.84	33.37
83.55-C	5	0920	33°44.0'	120°24.5'	1320	270°	3	clear	slight	13.46	33.30
85.40-C	6	0400	33°57.0'	119°10.5'	420	310°	3	clear	slight	13.86	33.32
85.50-C	6	2230	33°36.5'	119°53.0'	125	290°	2	fog	moderate	13.54	33.35
85.60-C	7	0520	33°17.0'	120°33.5'	780	330°	3	partly cloudy	moderate	13.39	33.31
87.35-C	8	0605	33°50.0'	118°37.0'	130	360°	1	clear	slight	13.76	33.30
87.45-C	8	0000	33°30.0'	119°19.0'	930	240°	1	clear	slight	13.52	33.35
87.55-C	7	1110	33°12.0'	120°03.0'	700	320°	2	clear	slight	13.56	33.26
90.30-C	8	1330	33°24.5'	117°55.0'	370	280°	1	clear	slight	14.48	33.40
90.45-C	10	0040	32°54.5'	118°56.0'	980	220°	1	cloudy	moderate	14.37	33.35
90.60-C	10	0945	32°25.0'	119°57.0'	520	250°	1	overcast	slight	14.00	33.18
90.80-C	10	2205	31°45.0'	121°19.0'	2170	320°	2	overcast	moderate	13.27	33.05
93.27-C	12	0040	32°57.0'	117°18.5'	41	320°	1	partly cloudy	slight	14.54	33.33
93.40-C	11	1740	32°30.0'	118°12.5'	900	calm		overcast	moderate	14.68	33.38

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
93.60-C	II-11	0650	31°49.0'	119°34.0'	1900	290°	1	overcast	moderate	14.40	33.38
97.30-C	12	0440	32°15.5'	117°10.0'	31	320°	2	partly cloudy	slight	14.32	33.34
97.32-C	12	0600	32°11.5'	117°17.5'	800	320°	1	partly cloudy	slight	14.92	33.42
97.50-C	12	1500	31°38.0'	118°32.0'	1400	270°	1	overcast	slight	14.10	33.32
100.30-C	14	0630	31°40.5'	116°47.0'	240	170°	5	overcast	very rough	14.00	33.35
100.40-C	14	0200	31°21.5'	117°26.5'	1020	220°	5	cloudy	rough	14.90	33.41
100.60-C	13	1555	30°39.0'	118°45.0'	1800	160°	4	overcast	rough	14.58	33.18
100.80-C	13	0500	30°01.0'	120°07.0'	2300	200°	1	overcast	moderate	14.84	33.36
103.35-H	16	0040	30°56.0'	116°44.5'	900	320°	3	partly cloudy	rough	14.78	33.28
103.45-H	15	1855	30°37.0'	117°22.5'	1100	320°	4	cloudy	rough	14.32	33.23
103.50-H	15	1505	30°27.5'	118°00.0'	1500	320°	5	partly cloudy	rough	14.08	33.28
107.32-H	14	0955	30°25.0'	116°11.5'	180	180°	3	rain	slight	14.49	33.36
107.40-H	14	1515	30°10.0'	116°43.5'	1575	260°	4	overcast	rough	15.76	33.41
107.45-H	14	1755	30°00.0'	117°03.0'	860	260°	4	partly cloudy	moderate	15.42	33.34
107.60-H	15	0140	29°32.0'	118°05.0'	1800	340°	4	partly cloudy	moderate	14.96	33.16
110.35-H	14	0355	29°46.5'	115°58.5'	660	220°	1	missing	smooth	14.96	33.34
110.45-H	13	2225	29°27.0'	116°38.0'	210	140°	2	partly cloudy	smooth	15.64	33.38
110.50-H	13	1940	29°15.0'	116°59.0'	1600	140°	2	partly cloudy	smooth	15.42	33.34
113.30-H	12	1230	29°21.0'	115°20.0'	35	320°	1	missing	smooth	15.49	33.43

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
113.40-H	II-12	1810	29°01.0'	115°57.5'	1175	300°	4	cloudy	rough	14.95	33.34
113.45-H	12	2100	28°52.0'	116°19.0'	-	300°	4	cloudy	moderate	-	33.44
113.60-H	13	0650	28°23.0'	117°17.0'	2025	320°	3	missing	slight	-	33.46
117.26-H	11	1850	28°55.0'	114°41.0'	40	320°	1	overcast	smooth	15.50	33.51
117.35-H	11	1405	28°37.0'	115°16.5'	125	320°	2	overcast	smooth	15.28	33.40
117.45-H	11	0735	28°19.5'	115°55.0'	1745	360°	3	overcast	slight	15.84	33.41
117.50-H	11	0455	28°08.0'	116°15.0'	2500	360°	3	overcast	smooth	15.67	33.39
117.55-H	11	0215	27°57.5'	116°35.0'	1700	360°	1	cloudy	smooth	15.94	33.39
120.30-H	9	0640	28°12.5'	114°34.0'	47	290°	1	missing	smooth	15.90	33.63
120.37^{5}-H	9	1040	27°59.0'	115°03.0'	37	320°	1	missing	calm	15.87	33.68
120.40-H	9	1230	27°56.0'	115°20.0'	45	180°	1	missing	calm	16.58	33.98
120.42^{5}-H	9	1345	27°49.0'	115°24.0'	90	320°	1	missing	calm	15.64	33.60
120.45-H	9	1525	27°42.5'	115°34.0'	1450	320°	2	partly cloudy	smooth	15.78	33.67
120.55-H	9	2145	27°19.5'	116°14.0'	2250	320°	2	cloudy	smooth	15.60	33.47
120.60-H	10	0015	27°10.0'	116°31.0'	2050	320°	2	partly cloudy	smooth	15.69	33.44
120.80-H	10	1255	26°35.0'	118°03.0'	2200	320°	2	missing	smooth	17.44	34.11
123.37-H	8	0950	27°24.0'	114°41.5'	40	320°	2	missing	smooth	17.48	34.01
123.40-H	8	0755	27°17.0'	114°53.0'	440	320°	4	partly cloudy	moderate	15.74	33.64
123.42^{5}-H	8	0615	27°13.0'	115°01.0'	1750	320°	4	partly cloudy	moderate	16.31	33.74

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
123.45-H	II-8	0440	27°08.5'	115°11.0'	2100	320°	3	partly cloudy	moderate	15.61	33.52
127.34-H	7	1135	26°55.0'	114°06.5'	45	360°	3	cloudy	slight	-	34.05
127.45-H	7	1800	26°33.5'	114°48.5'	1500	300°	1	cloudy	missing	17.46	33.94
127.50-H	7	2020	26°21.5'	115°11.5'	2000+	320°	3	cloudy	moderate	17.55	34.08
130.35-H	7	0435	26°28.0'	113°48.0'	55	320°	1	missing	smooth	17.51	33.97
130.45-H	6	2110	25°56.5'	114°22.0'	2000	270°	2	partly cloudy	slight	18.73	34.21
130.50-H	6	1900	25°46.5'	114°44.0'	2000	270°	3	partly cloudy	slight	18.45	34.14
130.55-H	6	1550	25°28.0'	115°58.0'	2000	280°	2	partly cloudy	slight	17.65	34.10
133.25-H	5	0905	26°05.0'	112°48.5'	45	-	-	missing	missing	19.00	34.29
133.35-H	5	1510	25°41.5'	113°29.5'	350	270°	1	cloudy	slight	18.57	34.21
133.40-H	5	1805	25°29.0'	113°49.0'	1000	270°	1	partly cloudy	slight	19.05	34.19
137.30-H	5	0405	25°25.0'	112°44.0'	130	-	-	missing	missing	18.95	34.22

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

77.55 CREST; March 9, 1954; 2048 GCT; 34°54.5'N, 121°10.5'W; sounding, 325 fm; wind, 270°, force 2; weather, fog; sea, rough; wire angle, 12°.

0	14.6	33.36	0	14.6	33.36		24.81	315	0.00
10	12.66	33.37	10	12.66	33.37		25.22	276	0.03
30	12.44	33.35	20	12.51	33.36		25.24	274	0.06
40	12.23	33.38	30	12.44	33.35		25.25	273	0.08
50	11.22	33.49	50	11.22	33.49		25.58	242	0.14
60	10.67	33.51	75	10.03	33.50		25.80	221	0.19
70	10.26	33.49	100	9.54	33.69		26.03	199	0.25
79	9.91	33.51	150	9.10	33.97		26.32	171	0.34
89	9.78	33.64	200	8.64	34.11		26.50	154	0.42
99	9.55	33.69	250	8.15	34.20		26.64	141	0.50
119	9.35	33.80	300	7.75	34.23		26.73	132	0.57
143	9.15	33.96	400	7.01	34.26		26.86	120	0.70
163	9.00	33.97	500	6.14	34.31		27.01	106	0.82
201	8.62	34.11							
279	7.91	34.22							
382	7.16	34.25							
504	6.09	34.31							

78.185 (5) N. B. SCOFIELD; March 18, 1954; 1820 GCT; 30°22'N, 129°45'W; sounding, 2000 fm; wind, 050°, force 1; weather, overcast; sea, moderate; wire angle, 08°.[a)]

0	16.62	33.93	5.53	0	16.62	33.93	5.53	24.80	316	0.00
10	16.64	33.97	5.54	10	16.64	33.97	5.54	24.83	313	0.03
31	16.68	33.96	5.60	20	16.64	33.96	5.58	24.82	314	0.06
62	16.98	34.26u	5.61	30	16.67	33.96	5.60	24.81	315	0.09
93	16.96	34.06	5.65	50	16.89	34.03	5.62	24.82	314	0.16
114	17.18	34.14	5.68	75	16.97	34.06	5.63	24.82	314	0.24
134	17.85	34.41	5.35	100	16.97	34.07	5.66	24.83	313	0.32
144	16.89	34.29	5.51	150	16.55	34.28	5.48	25.09	288	0.47
154	16.29	34.27	5.35	200	12.40	33.76	5.28	25.57	242	0.60
179	14.08	33.84	5.47	250	10.02	33.79	4.73	26.02	200	0.72
204	12.10	33.76	5.18	300	8.63	33.94	4.46	26.37	166	0.81
263	9.58	33.81	4.64	400	6.77	33.98	3.10	26.67	138	0.97
332	7.90	34.00	4.25	500	5.61	34.04	1.59	26.86	120	1.10
417	6.54	33.98	2.76	600	4.94	34.16	0.74	27.04	103	1.22
522	5.45	34.07	1.34	700	4.53	34.27	0.53	27.17	91	1.32
652	4.69	34.22	0.55	800	4.23	34.39	0.52	27.30	78	1.42
825	4.17	34.42	0.51	1000	3.70	34.55	1.03	27.48	61	1.57
1013	3.67	34.55	1.11							

80.55 CREST; March 9, 1954; 1158 GCT; 34°20'N, 120°48.5'W; sounding, 420 fm; wind, 200°, force 2; weather, drizzle; sea, slight; wire angle, 06°.

0	13.8	33.28	0	13.8	33.28		24.92	304	0.00
10	13.47	33.33	10	13.47	33.33		25.03	294	0.03
31	12.86	33.30	20	13.16	33.32		25.08	289	0.06
41	11.32	33.27	30	12.91	33.30		25.12	285	0.09
52	10.66	33.30	50	10.76	33.29		25.51	248	0.14

a) The RV N. B. Scofield of the California Department of Fish and Game occupied hydrographic stations on Cruise 5403 during a special albacore investigation survey. The stations are listed by CCOFI numbers in numerical order with auxiliary numbers in parentheses to indicate chronological order.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

CREST; March 9, 1954; 0458 GCT; 33°49'N, 121°51'W; sounding, 2020 fm; wind, 170°, force 3; weather, overcast; sea, moderate; wire angle, 04°. 80.70

0	14.19	33.24	0	14.19	33.24	24.81	315	0.00
10	13.15	33.23	10	13.15	33.23	25.01	296	0.03
26	12.76	33.31	20	12.88	33.28	25.11	286	0.06
57	10.49	33.37	30	12.59	33.32	25.19	279	0.09
67	10.10	33.42	50	10.90	33.36	25.54	245	0.14
77	9.79	33.44	75	9.84	33.44	25.78	222	0.20
91	9.39	33.49	100	9.21	33.62	26.03	199	0.25
112	9.04	33.74	150	8.57	33.87	26.32	171	0.35
136	8.78	33.82	200	7.96	34.01	26.52	152	0.43
167	8.33	33.94	250	7.46	34.07	26.64	141	0.50
221	7.74	34.04	300	7.05	34.13	26.75	130	0.57
301	7.04	34.13	400	6.49	34.28	26.94	112	0.70
409	6.44	34.29	500	5.92	34.32	27.05	102	0.81
555	5.62	34.33	600	5.39	34.34	27.13	94	0.92
749	4.69	34.40	700	4.90	34.38	27.22	86	1.02
992	3.90	34.49	800	4.50	34.42	27.29	79	1.11
1310	3.18	34.52	1000	3.87	34.49	27.42	67	1.27

CREST; March 8, 1954; 2021 GCT; 33°09.5'N, 123°12'W; sounding, 2350 fm; wind, 200°, force 3; weather, overcast; sea, moderate; wire angle, 15°. 80.90

0	14.8	32.97	0	14.8	32.97	24.47	347	0.00
10	13.17	33.00	10	13.17	33.00	24.83	313	0.03
25	12.72	33.02	20	12.80	33.01	24.91	305	0.06
50	12.24	33.28	30	12.61	33.06	24.99	298	0.09
60	12.24	33.33	50	12.24	33.28	25.23	275	0.15
71	12.06	33.31	75	11.91	33.32	25.32	266	0.22
80	11.58	33.33	100	9.58	33.36	25.76	224	0.28
99	9.60	33.36	150	8.53	33.85	26.31	172	0.38
123	9.29	33.69	200	7.48	33.96	26.55	149	0.46
152	8.50	33.85	250	7.40	34.10	26.68	137	0.54
201	7.48	33.96	300	6.98	34.13	26.76	129	0.60
267	7.35	34.12	400	6.06	34.15	26.90	116	0.73
370	6.24	34.13	500	5.55	34.29	27.07	100	0.85
493	5.60	34.29	600	4.91	34.30	27.15	92	0.95
669	4.60	34.31	700	4.51	34.32	27.21	87	1.05
889	3.98	34.45	800	4.21	34.38	27.29	79	1.14
1195	3.25	34.51	1000	3.70	34.48	27.43	66	1.30

CREST; March 7, 1954; 2058 GCT; 34°16'N, 119°58'W; sounding, 315 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 04°. 82.47

0	14.5	33.43	0	14.5	33.43	24.89	307	0.00
10	13.18	33.40	10	13.18	33.40	25.14	283	0.03
31	11.54	33.44	20	12.17	33.41	25.34	264	0.06
41	11.34	33.53	30	11.59	33.44	25.48	251	0.08
51	11.02	33.60	50	11.06	33.60	25.70	230	0.13
62	10.72	33.58	75	10.21	33.73	25.95	206	0.19
71	10.30	33.63	100	9.68	33.76	26.06	196	0.24
81	10.12	33.80	150	9.33	34.05	26.34	169	0.33
91	9.95	33.75	200	8.82	34.12	26.48	156	0.41
102	9.62	33.77	250	8.36	34.16	26.58	146	0.49
122	9.38	33.91	300	7.91	34.18	26.66	139	0.56
145	9.35	34.04	400	7.12				
166	9.24	34.07	500	6.53				
205	8.75	34.34u						
285	8.06	34.18						
389	7.21	34.20						
511	6.48	-						

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

83.43 CREST; March 7, 1954; 1903 GCT; 34°09'N, 119°35'W; sounding, 140 fm; wind, calm; weather, cloudy; sea, smooth; wire angle, 00°.

0	14.38	33.44	0	14.38	33.44	24.92	304	0.00
11	14.08	33.46	10	14.11	33.46	25.00	297	0.03
16	14.06	33.49	20	14.07	33.46	25.00	297	0.06
21	14.07	33.45	30	13.97	33.44	25.01	296	0.09
26	14.08	33.46	50	12.85	33.47	25.26	272	0.15
31	13.94	33.44	75	11.00	33.59	25.70	230	0.21
37	13.70	33.46	100	9.92	33.81	26.06	196	0.26
47	13.15	33.46	150	9.28	34.12	26.40	164	0.35
57	12.06	33.53	200	8.81	34.24	26.57	148	0.43
67	11.37	33.55						
78	10.84	33.62						
97	9.98	33.78						
112	9.78	33.98						
142	9.37	34.13						
172	9.09	34.09						
207	8.77	34.29						

83.51 CREST; March 8, 1954; 0325 GCT; 33°52'N, 120°08.5'W; sounding, 105 fm; wind, 300°, force 4; weather, clear; sea, smooth; wire angle, 05°.

0	13.96	33.37	0	13.96	33.37	24.96	300	0.00
10	13.94	33.35	10	13.94	33.35	24.95	301	0.03
15	13.42	33.39	20	12.72	33.37	25.21	277	0.06
21	12.60	33.37	30	12.09	33.41	25.36	262	0.09
26	12.18	33.42	50	10.50	33.58	25.78	222	0.14
31	12.04	33.41	75	9.91	33.78	26.04	198	0.19
36	11.50	33.42	100	9.35	33.92	26.24	179	0.24
47	10.58	33.56						
57	10.39	33.62						
67	10.12	33.68						
81	9.76	33.84						
101	9.32	33.92						

83.60 CREST; March 8, 1954; 0829 GCT; 33°34'N, 120°46'W; sounding, 950 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 04°.

0	14.0	33.22	0	14.0	33.22	24.83	313	0.00
10	13.49	33.22	10	13.49	33.22	24.94	302	0.03
30	13.34	33.28	20	13.40	33.25	24.98	299	0.06
46	13.16	33.51u	30	13.34	33.28	25.01	296	0.09
56	13.09	33.37	50	13.13	33.38	25.13	284	0.15
66	12.56	33.29	75	11.51	33.30	25.38	260	0.22
76	11.40	33.30	100	9.93	33.57	25.87	214	0.28
87	10.28	33.42	150	8.70	33.88	26.31	172	0.37
102	9.88	33.57	200	8.09	33.99	26.49	155	0.46
112	9.41	33.51	250	7.60	34.06	26.62	143	0.53
137	8.92	33.79	300	7.15	34.13	26.73	132	0.61
166	8.50	33.93	400	6.28	34.22	26.92	114	0.73
221	7.87	34.02	500	5.85	34.29	27.03	104	0.85
286	7.30	34.11	600	5.46	34.37	27.14	93	0.95
401	6.28	34.22						
533	5.72	34.31						
671	5.18	34.43						

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

CREST; March 7, 1954; 1343 GCT; 34°00'N, 119°04'W; sounding, 190 fm; wind, 180°, force 1; weather, fog; sea, smooth; wire angle, 01°. 8539

0	13.90	33.30	0	13.90	33.30	24.92	304	0.00
21	13.52	33.34	10	13.82	33.33	24.96	300	0.03
36	12.83	33.33	20	13.57	33.34	25.01	296	0.06
46	12.36	33.29	30	13.11	33.34	25.11	286	0.09
56	11.25	33.43	50	12.00	33.33	25.31	267	0.14
66	10.55	33.54	75	10.61	33.60	25.78	222	0.21
71	10.61	33.56	100	10.20	33.71	25.93	208	0.26
76	10.59	33.60						
81	10.50	33.60						
86	10.44	33.58						
91	10.34	33.67						
101	10.18	33.71						

CREST; March 7, 1954; 0926 GCT; 33°48'N, 119°31.5'W; sounding, 995 fm; wind, 290°, force 1; weather, clear; sea, calm; wire angle, 05°. 8545

0	14.18	33.31	0	14.18	33.31	24.87	309	0.00
10	14.20	33.31	10	14.20	33.31	24.86	310	0.03
31	13.48	33.30	20	13.99	33.30	24.90	306	0.06
41	12.52	33.32	30	13.53	33.30	24.99	298	0.09
52	11.50	33.35	50	11.63	33.35	25.40	259	0.15
62	11.00	33.37	75	10.58	33.43	25.65	235	0.21
72	10.62	33.41	100	10.26	33.65	25.88	213	0.27
81	10.50	33.49	150	9.48	33.92	26.22	181	0.37
92	10.30	33.68	200	8.88	34.08	26.44	160	0.45
102	10.23	33.65	250	8.30	34.15	26.58	146	0.53
127	9.68	33.83	300	7.79	34.18	26.68	137	0.60
156	9.41	33.94	400	6.99	34.29	26.88	118	0.74
206	8.80	34.09	500	6.37	34.33	27.00	107	0.86
265	8.16	34.16	600	5.67	34.37	27.12	95	0.97
369	7.20	34.24						
489	6.44	34.42u						
616	5.56	34.36						

CREST; March 7, 1954; 0312 GCT; 33°30'N, 120°15'W; sounding, 680 fm; wind, 310°, force 5; weather, partly cloudy; sea, rough; wire angle, 18°. 8555

0	13.81	33.19	0	13.81	33.19	24.85	311	0.00
10	13.80	33.13	10	13.80	33.13	24.81	315	0.03
30	13.78	33.21	20	13.80	33.17	24.84	312	0.06
45	13.23	33.23	30	13.78	33.21	24.87	309	0.09
54	11.76	33.21	50	12.34	33.22	25.16	281	0.15
65	10.77	33.21	75	9.98	33.31	25.66	234	0.22
74	10.02	33.29	100	9.28	33.56	25.97	204	0.27
83	9.58	33.42	150	8.68	33.91	26.34	169	0.37
97	9.34	33.53	200	8.07	34.02	26.52	152	0.45
106	9.12	33.65	250	7.57	34.09	26.64	141	0.52
130	8.83	33.84	300	7.17	34.14	26.74	131	0.60
158	8.62	33.93	400	6.48	34.25	26.92	114	0.72
211	7.94	34.04	500	6.00	34.33	27.05	102	0.84
273	7.39	34.11	600	5.63				
385	6.56	34.24						
513	5.94	34.34						
648	5.48	-						

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
87.40	CREST; March 6, 1954; 1005 GCT; 33°40'N, 118°58.5'W; sounding, 520 fm; wind, 320°, force 1; weather, overcast; sea, slight; wire angle, 02°.									
0	14.54	33.39		0	14.54	33.39		24.85	311	0.00
10	14.29	33.40		10	14.29	33.40		24.91	305	0.03
31	12.89	33.40		20	13.60	33.40		25.05	292	0.06
41	12.18	33.47		30	12.96	33.40		25.18	280	0.09
52	11.54	33.48		50	11.63	33.48		25.50	249	0.14
63	11.22	-		75	10.81	33.52		25.68	232	0.20
73	10.86	33.51		100	10.44	33.68		25.87	214	0.26
82	10.65	33.59		150	9.80	33.90		26.15	187	0.36
92	10.50	33.67		200	9.15	34.11		26.42	162	0.45
102	10.41	33.68		250	8.49	34.19		26.58	146	0.53
127	10.04	33.84		300	7.93	34.24		26.71	134	0.60
157	9.72	33.92		400	7.09	34.30		26.88	118	0.73
207	9.07	34.13		500	6.41	34.36		27.02	105	0.85
267	8.28	34.21		600	5.79					
372	7.28	34.28								
492	6.49	34.36								
619	5.68	34.54u								
87.50	CREST; March 6, 1954; 1542 GCT; 33°20'N, 119°39'W; sounding, 42 fm; wind, 300°, force 4; weather, cloudy; sea, moderate; wire angle, 10°.									
0	13.46	33.48		0	13.46	33.48		25.14	283	0.00
11	13.22	33.37		10	13.25	33.37		25.10	287	0.03
21	13.10	33.38		20	13.10	33.38		25.14	283	0.06
31	12.99	33.40		30	13.00	33.40		25.17	280	0.08
41	12.76	33.40		50	11.92	33.47		25.44	255	0.14
51	11.89	33.48								
62	11.69	33.50								
87.60	CREST; March 6, 1954; 2109 GCT; 33°02.5'N, 120°24'W; sounding, 510 fm; wind, 310°, force 4; weather, overcast; sea, moderate; wire angle, 06°.									
0	14.36	33.19		0	14.36	33.19		24.74	321	0.00
10	14.35	33.22		10	14.35	33.22		24.76	320	0.03
31	14.35	33.22		20	14.37	33.22		24.76	320	0.06
47	14.30	33.22		30	14.37	33.22		24.76	320	0.10
58	13.42	33.17		50	14.29	33.21		24.77	319	0.16
67	12.29	33.14		75	11.19	33.10		25.28	270	0.23
76	11.10	33.10		100	9.52	33.42		25.82	219	0.30
87	10.54	33.22		150	8.71	33.78		26.23	180	0.40
102	9.48	33.44		200	8.11	33.96		26.46	158	0.48
111	9.37	33.49		250	7.59	34.03		26.59	146	0.56
136	8.92	33.64		300	7.07	34.11		26.73	132	0.63
167	8.50	33.91		400	6.22	34.16		26.88	118	0.76
220	7.90	33.98		500	5.73	34.30		27.06	101	0.88
285	7.23	34.10		600	5.32	34.35		27.14	93	0.98
399	6.23	34.16								
530	5.62	34.33								
667	5.08	34.35								

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 cm^3/g$	dyn. m

N. B. SCOFIELD; March 17, 1954; 1530 GCT; 27°55'N, 130°14'W; sounding, 2000 fm; wind, 020°, force 5; weather, overcast; sea, very rough; wire angle, 18°. 88.210 (4)

0	17.61	34.35	5.52	0	17.61	34.35	5.52	24.89	307	0.00
10	17.63	34.32	5.53	10	17.63	34.32	5.53	24.86	310	0.03
35	17.62	34.33	5.42	20	17.64	34.32	5.52	24.86	310	0.06
65	17.67	34.34	5.64	30	17.64	34.33	5.44	24.87	309	0.09
84	17.74	34.34	5.41	50	17.65	34.34	5.54	24.87	309	0.16
104	18.36	34.61	5.38	75	17.69	34.34	5.55	24.86	310	0.23
114	18.39	34.64	5.26	100	18.29	34.57	5.40	24.89	307	0.31
143	16.96	34.34	5.25	150	16.25	34.20	5.23	25.09	288	0.46
181	13.18	33.82	5.11	200	12.17	33.85	5.08	25.68	232	0.59
230	10.84	33.98	5.02	250	10.14	34.05	4.90	26.21	182	0.70
298	8.76	34.16	4.44	300	8.70	34.16	4.42	26.53	151	0.78
380	7.13	33.96	3.32	400	6.82	33.97	3.26	26.65	140	0.94
483	5.96	34.11	1.55	500	5.80	34.14	1.38	26.92	114	1.07
612	5.06	34.34	0.68	600	5.12	34.34	0.73	27.16	92	1.18
781	4.28	34.36	0.56	700	4.60	34.35	0.58	27.23	85	1.27
990	3.79	34.52	0.80	800	4.21	34.36	0.56	27.28	80	1.36
				1000	(3.77)	(34.53)	(0.80)	(27.46)	(63)	(1.52)

CREST; March 10, 1954; 1346 GCT; 33°28.5'N, 117°47'W; sounding, 74 fm; wind, 280°, force 2; weather, overcast; sea, smooth; wire angle, 00°. 90.28

0	14.30	33.30	0	14.30	33.30		24.83	313	0.00
10	14.29	33.30	10	14.29	33.30		24.83	313	0.03
16	13.92	33.29	20	13.30	33.30		25.04	293	0.06
21	13.12	33.30	30	11.36	33.34		25.44	255	0.09
26	12.06	33.33	50	10.72	33.46		25.65	235	0.14
31	11.28	33.34							
36	11.16	33.39							
42	10.96	33.35							
52	10.65	33.49							

CREST; March 10, 1954; 1814 GCT; 33°11'N, 118°23.5'W; sounding, 700 fm; wind, 280°, force 4; weather, cloudy; sea, rough; wire angle, 15°. 90.37

0	14.9	33.31	0	14.9	33.31		24.71	324	0.00
10	14.68	-	10	14.68	33.30		24.75	320	0.03
30	13.13	33.30	20	14.26	33.30		24.84	312	0.06
45	10.98	33.30	30	13.13	33.30		25.07	290	0.09
55	10.59	33.36	50	10.70	33.32		25.54	245	0.15
65	10.61	33.47	75	10.41	33.55		25.77	223	0.21
74	10.42	33.55	100	10.33	33.73		25.93	208	0.26
84	10.39	33.58	150	9.74	33.97		26.21	181	0.36
98	10.37	33.71	200	9.29	34.08		26.37	166	0.45
107	10.18	33.78	250	8.47	34.15		26.56	148	0.53
131	9.96	33.87	300	7.81	34.18		26.68	137	0.60
159	9.63	34.18u	400	7.00	34.19		26.80	126	0.74
211	9.15	34.10	500	6.35	34.25		26.94	112	0.87
273	8.10	34.17	600	5.71	34.31		27.07	100	0.98
382	7.12	34.18							
507	6.32	34.25							
639	5.50	34.33							

S10

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
90.55	CREST; March 11, 1954; 0346, 0415 GCT; 32°35'N, 119°36.5'W; sounding, 570 fm; wind, 340°, force 6; weather, cloudy; sea, high; wire angle, 42°, 48°.									
0	14.0	33.18		0	14.0	33.18		24.80	316	0.00
10	13.94	33.18		10	13.94	33.18		24.81	315	0.03
26	13.94	33.18		20	13.96	33.18		24.81	315	0.06
34	13.86	33.18		30	13.92	33.18		24.82	314	0.09
42	13.55	33.22		50	13.03	33.20		25.01	296	0.16
50	13.03	33.20		75	11.50	33.30		25.38	260	0.23
58	12.38	33.30		100	10.19	33.45		25.73	227	0.29
64	11.96	33.26		150	8.87	33.92		26.31	172	0.39
				200	8.53	34.04		26.46	158	0.47
78	11.37	33.32		250	8.04	34.12		26.60	145	0.55
98	10.25	33.43		300	7.53	34.18		26.72	133	0.62
119	9.54	33.65		400	6.74	34.23		26.87	119	0.75
160	8.77	33.97		500	6.31	34.26		26.95	111	0.87
211	8.46	34.06		600	5.76	34.29		27.04	103	0.99
289	7.66	34.17								
392	6.78	34.23								
520	6.22	34.26								
657	5.40	34.32								
90.70	CREST; March 11, 1954; 1254 GCT; 32°04'N, 120°40'W; sounding, 2200 fm; wind, 330°, force 6; weather, partly cloudy; sea, high; wire angle, 38°.									
0	14.72	33.32		0	14.72	33.32		24.76	320	0.00
9	14.70	33.34		10	14.70	33.34		24.78	318	0.03
26	14.72	33.36		20	14.71	33.36		24.79	317	0.06
48	12.84	33.22		30	14.57	33.34		24.81	315	0.10
61	11.07	33.24		50	12.59	33.22		25.12	285	0.16
68	10.49	33.22		75	10.04	33.28		25.62	238	0.22
81	9.78	33.37		100	9.30	33.58		25.98	204	0.28
101	9.28	33.60		150	8.94	34.01		26.37	166	0.37
149	8.96	34.01		200	(8.29)	(34.05)		(26.51)	(153)	(0.45)
198	8.30	34.05		250	(7.76)	(34.12)		(26.64)	(141)	(0.53)
366	6.90	34.25		300	(7.36)	(34.18)		(26.74)	(131)	(0.60)
500	6.08	34.36		400	6.67	34.28		26.92	114	(0.73)
				500	6.08	34.36		27.06	101	(0.84)
90.135 (6)	N. B. SCOFIELD; March 20, 1954; 1815, 1841 GCT; 30°00'N, 125°00'W; sounding, 2000 fm; wind, 320°, force 2; weather, missing; sea, rough; wire angle, 05°, 03°.									
0	15.63	33.35	5.47	0	15.63	33.35	5.47	24.58	337	0.00
11	15.62	33.36	5.56	10	15.63	33.36	5.55	24.59	336	0.03
43	15.68	33.37	5.68	20	15.63	33.36	5.60	24.59	336	0.07
				30	15.64	33.36	5.64	24.59	336	0.10
83	16.03	33.50	5.60	50	15.70	33.39	5.68	24.60	335	0.17
103	15.34	33.46	5.74	75	15.99	33.48	5.61	24.60	335	0.25
118	14.54	33.53	5.72	100	15.52	33.46	5.73	24.69	326	0.34
123	14.42	33.58u	5.74	150	13.32	33.49	5.64	25.18	280	0.49
133	14.45	33.51	5.64	200	10.09	33.82	4.84	26.04	198	0.61
153	12.98	33.49	5.64	250	8.47	33.78	3.55	26.27	176	0.71
192	10.47	33.82	5.04	300	7.87	34.04	2.73	26.56	148	0.79
243	8.58	33.78	3.70	400	6.52	34.05	1.75	26.76	129	0.93
301	7.83	34.04	2.73	500	5.82	34.16	1.03	26.93	113	1.06
370	6.80	34.04	2.11	600	5.19	34.24	0.51	27.07	100	1.17
450	6.13	34.10	1.23	700	4.77	34.33	0.45	27.19	89	1.28
520	5.70	34.18	0.93	800	4.42	34.44	0.66	27.32	76	1.36
651	4.96	34.28	0.42	1000	3.82	34.49	0.75	27.42	67	1.52
824	4.36	34.45	0.70							
1013	3.81	34.49	0.74							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

CREST; March 12, 1954; 1435 GCT; 32°50'N, 117°31.5'W; sounding, 470 fm; wind, 360°, force 2; weather, partly cloudy; sea, rough; wire angle, 05°. 9330

0	14.6	33.35	0	14.6	33.35	24.81	315	0.00
10	14.60	33.33	10	14.60	33.33	24.79	317	0.03
32	11.88	33.44	20	14.60	33.38	24.83	313	0.06
42	11.18	33.52	30	12.12	33.43	25.37	262	0.09
52	10.74	33.59	50	10.81	33.58	25.72	228	0.14
62	10.66	33.58	75	10.45	33.65	25.84	217	0.20
72	10.51	33.62	100	10.10	33.80	26.02	200	0.25
82	10.34	33.68	150	9.61	34.01	26.27	176	0.34
92	10.28	33.68	200	9.41	34.29	26.52	152	0.43
102	10.08	33.82	250	8.96	34.36	26.64	141	0.50
127	9.88	33.89	300	8.23	34.35	26.75	130	0.57
156	9.56	34.05	400	7.10	34.29	26.87	119	0.70
207	9.38	34.31	500	6.33	34.26	26.95	111	0.83
267	8.74	34.36	600	5.68	34.35	27.10	97	0.94
372	7.35	34.31						
491	6.40	34.26						
619	5.58	34.37						

CREST; March 11, 1954; 1848 GCT; 31°29'N, 120°19.5'W; sounding, 2300 fm; wind, 350°, force 6; weather, cloudy; sea, high; wire angle, 33°. 9370

0	14.6	33.34	0	14.6	33.34	24.80	316	0.00
8	14.49	-	10	14.48	33.34	24.83	313	0.03
26	14.48	33.35	20	14.48	33.35	24.83	313	0.06
35	14.39	33.36	30	14.44	33.35	24.84	312	0.09
42	14.25	33.35	50	12.28	33.24	25.19	279	0.15
50	12.28	33.24	75	10.98	33.24	25.43	256	0.22
58	11.35	33.28	100	9.30	33.66	26.04	198	0.28
67	11.17	33.31	150	8.46	33.94	26.39	164	0.37
74	11.02	33.24	200	8.35	34.14	26.57	148	0.45
82	9.92	33.40	250	7.77	34.25	26.74	131	0.52
100	9.30	33.66	300	7.28	34.30	26.85	121	0.59
121	8.76	33.84	400	6.56	34.34	26.98	109	0.71
156	8.43	33.96	500	(5.99)	(34.34)	(27.05)	(102)	(0.82)
202	8.34	34.14						
282	7.44	34.29						
379	6.70	34.34						
491	6.02	34.34						

HORIZON; March 18, 1954; 2145 GCT; 31°58'N, 117°51'W; sounding, 750 fm; wind, 270°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°. 9740

0	14.5	-	0	14.5	(33.35)	(24.83)	(313)	(0.00)
10	14.25	33.35	10	14.25	33.35	24.88	308	0.03
30	14.18	33.34	20	14.20	33.35	24.89	307	0.06
45	12.34	33.28	30	14.18	33.34	24.89	307	0.09
55	11.10	33.58u	50	11.56	33.28	25.36	263	0.15
65	10.58	33.30	75	10.23	33.38	25.67	233	0.21
75	10.23	33.38	100	9.63	33.53	25.89	212	0.27
84	9.95	33.48	150	9.18	34.00	26.33	170	0.37
99	9.65	33.53	200	8.73	34.13	26.50	154	0.45
109	9.40	33.68	250	8.43	34.23	26.63	142	0.52
133	9.12	33.89	300	8.20	34.30	26.72	133	0.60
163	9.18	34.10	400	6.87	34.30	26.91	115	0.73
217	8.55	34.14	500	6.17	34.36	27.05	102	0.84
281	8.32	34.30	600	5.63	34.40	27.15	92	0.95
394	6.92	34.30						
525	6.02	34.37						
662	5.34	34.42						

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
97.60	HORIZON; March 18, 1954; 1229 GCT; 31°16.5'N, 119°09'W; sounding, 1350 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 18°.									
0	14.5	33.40		0	14.5	33.40		24.87	309	0.00
10	14.43	33.37		10	14.43	33.37		24.86	310	0.03
30	14.44	33.40		20	14.45	33.38		24.86	310	0.06
45	12.74	33.42		30	14.44	33.40		24.88	308	0.09
54	11.46	33.37		50	12.00	33.40		25.37	262	0.15
64	10.48	33.42		75	9.87	33.49		25.82	219	0.21
74	9.88	33.48		100	9.15	33.70		26.10	192	0.26
83	9.69	33.53		150	8.42	33.98		26.43	161	0.35
98	9.16	33.67		200	7.63	34.04		26.60	145	0.43
107	9.07	33.77		250	7.48	34.11		26.67	138	0.50
131	8.66	33.92		300	7.21	34.26		26.83	123	0.57
160	8.26	34.00		400	6.38	34.32		26.99	108	0.69
213	7.52	34.05		500	5.88	34.37		27.09	98	0.80
275	7.42	34.22		600	5.40	34.46		27.22	86	0.90
388	6.48	34.31								
517	5.80	34.38								
653	5.17	34.51								
97.225 (3)	N. B. SCOFIELD; March 16, 1954; 1835 GCT; 25°52'N, 129°56'W; sounding, 2000 fm; wind, 340°, force 2; weather, cloudy; sea, slight; wire angle, 00°.									
0	17.48	34.05	5.59	0	17.48	34.05	5.59	24.69	326	0.00
10	17.47	34.11	5.46	10	17.47	34.11	5.46	24.74	321	0.03
37	17.77	34.20	5.28	20	17.52	34.14	5.34	24.75	320	0.06
78	18.39	34.44	5.28	30	17.65	34.17	5.29	24.74	321	0.10
104	18.47	34.51	5.15	50	18.03	34.29	5.30	24.74	321	0.16
135	18.28	34.54	5.19	75	18.37	34.43	5.29	24.76	320	0.24
145	16.92	34.24	5.54	100	18.45	34.50	5.17	24.80	316	0.32
150	16.69	34.27	5.33	150	16.69	34.27	5.33	25.05	292	0.48
155	16.60	34.36	5.31	200	13.90	34.09	5.19	25.52	247	0.61
166	16.18	34.33	5.26	250	10.85	33.92	4.75	25.98	204	0.73
216	12.92	34.02	5.16	300	9.30	33.98	3.90	26.29	174	0.82
266	10.10	33.91	4.55	400	7.29	34.12	2.38	26.71	134	0.99
336	8.67	34.08	3.17	500	5.69	34.14	1.46	26.93	113	1.12
426	6.82	34.13	2.15	600	5.35	34.18	0.59	27.01	106	1.23
527	5.54	34.14	1.11	700	5.01	34.34	0.52	27.17	91	1.34
658	5.19	34.25	0.48	800	4.57	34.51	0.74	27.36	73	1.43
832	4.46	34.52	0.78	1000	3.92	34.53	0.80	27.44	65	1.58
1020	3.88	34.53	0.78							
98.150 (7)	N. B. SCOFIELD; March 21, 1954; 1825 GCT; 28°00'N, 125°00'W; sounding, 2000 fm; wind, 340°, force 4; weather, drizzle; sea, moderate; wire angle, 20°.									
0	17.48	33.68	5.43	0	17.48	33.68	5.43	24.41	353	0.00
10	17.52	33.78	5.57	10	17.52	33.78	5.57	24.48	346	0.04
45	17.54	33.85	5.50	20	17.53	33.80	5.55	24.49	345	0.07
83	17.70	33.95	5.43	30	17.53	33.82	5.53	24.50	344	0.10
102	17.50	33.86	5.51	50	17.55	33.87	5.49	24.54	340	0.17
111	17.63	33.98	5.45	75	17.68	33.93	5.45	24.55	340	0.26
116	17.61	34.01	5.57	100	17.50	33.86	5.51	24.54	340	0.34
120	17.56	34.06	5.49	150	14.93	33.83	5.55	25.11	286	0.50
134	16.38	33.96	5.63	200	11.43	33.55	4.65	25.59	240	0.64
198	11.49	33.55	4.67	250	9.61	33.93	3.66	26.20	183	0.74
244	9.80	33.92	3.69	300	8.18	33.98	3.12	26.47	157	0.83
308	8.04	-	-	400	6.84	34.15	2.02	26.79	127	0.98
387	7.00	34.12	2.20	500	5.99	34.30	0.91	27.02	105	1.10
485	6.08	34.29	1.01	600	5.47	34.32	0.56	27.10	97	1.21
610	5.42	34.32	0.56	700	5.04	34.33	0.66	27.16	92	1.31
774	4.79	34.33	0.76	800	4.80	34.34	0.77	27.20	88	1.41
1055	4.14	34.52	0.70	1000	4.23	34.49	0.73	27.38	71	1.58

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 cm^3/g$	dyn. m

100.29

HORIZON; March 16, 1954; 1412 GCT; 31°42'N, 116°44.5'W; sounding, 90 fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 03°.

0	12.83	33.47	0	12.83	33.47	25.26	272	0.00
10	12.05	33.48	10	12.05	33.48	25.42	257	0.03
15	11.30	33.49	20	10.63	33.57	25.75	225	0.05
20	10.63	33.57	30	10.33	33.59	25.82	219	0.07
25	10.45	33.60	50	10.12	33.68	25.92	209	0.12
31	10.32	33.59						
36	10.32	33.59						
41	10.31	33.61						
51	10.10	33.69						

100.50

HORIZON; March 16, 1954; 2350 GCT; 31°03.5'N, 118°03'W; sounding, 950 fm; wind, 220°, force 3; weather, overcast; sea, moderate; wire angle, 36°.

0	14.5	33.22	0	14.5	33.22	24.73	322	0.00
9	14.42	33.26	10	14.42	33.26	24.78	318	0.03
22	-	33.26	20	14.08	33.26	24.85	311	0.06
48	13.58	33.25	30	13.90	33.26	24.88	308	0.10
56	12.48	33.13	50	13.48	33.24	24.96	300	0.16
65	11.76	33.10	75	11.09	33.14	25.33	265	0.23
77	10.96	33.19	100	9.69	33.46	25.82	219	0.29
93	9.90	33.39	150	8.88	33.85	26.26	177	0.39
112	9.46	33.58	200	8.24	33.99	26.47	157	0.47
136	9.08	33.77	250	7.52	34.01	26.59	146	0.55
179	8.54	33.96	300	6.90	34.05	26.71	134	0.62
243	7.60	34.01	400	6.32	34.16	26.87	119	0.75
331	6.64	34.09	500	5.98	34.25	26.98	109	0.87
452	6.16	34.21						

100.70

HORIZON; March 17, 1954; 1031 GCT; 30°24.5'N, 119°24.5'W; sounding, 2100 fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 25°.

0	15.6	33.25	0	15.6	33.25	24.51	343	0.00
9	15.52	33.23	10	15.52	33.23	24.52	342	0.03
27	15.50	33.29	20	15.50	33.27	24.55	340	0.07
50	15.53	33.24	30	15.50	33.29	24.57	338	0.10
63	15.52	33.36	50	15.53	33.24	24.52	342	0.17
73	14.36	33.21	75	14.13	33.17	24.77	319	0.25
86	13.18	33.14	100	12.15	33.15	25.15	282	0.33
109	11.54	33.17	150	9.53	33.60	25.96	205	0.45
141	9.81	33.48	200	8.45	33.94	26.40	164	0.55
165	9.14	33.71	250	7.72	34.09	26.62	143	0.62
220	8.12	34.04	300	7.18	34.14	26.74	131	0.70
302	7.16	34.14	400	6.32	34.22	26.92	114	0.82
411	6.26	34.24	500	5.95	34.36	27.07	100	0.94
561	5.76	34.42	600	5.60	34.44	27.18	90	1.04
765	4.76	34.49	700	5.08	34.47	27.27	81	1.13
1012	3.92	34.58	800	4.62	34.50	27.34	74	1.22
1347	3.13	-	1000	3.97	34.58	27.48	61	1.37

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5403

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

100.90

HORIZON; March 17, 1954; 2220 GCT; 29°39'N, 120°47'W; sounding, 2200 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 22°.

0	15.5	33.40	0	15.5	33.40		24.65	330	0.00
9	15.54	33.37	10	15.56	33.37		24.61	334	0.03
28	15.38	33.35	20	15.42	33.35		24.63	332	0.07
51	15.36	-	30	15.38	33.35		24.64	331	0.10
66	15.27	33.35	50	15.37	33.36		24.65	330	0.17
75	14.52	33.19	75	14.52	33.19		24.70	325	0.25
89	14.18	33.24	100	13.16	33.23		25.01	296	0.33
112	11.80	33.22	150	10.08	33.49		25.78	222	0.46
145	10.24	33.44	200	8.94	33.73		26.15	187	0.56
169	9.54	33.58	250	8.14	34.01		26.50	154	0.65
226	8.56	33.89	300	7.39	34.15		26.72	133	0.72
308	7.31	34.16	400	6.52	34.24		26.91	115	0.85
419	6.42	34.25	500	6.15	34.38		27.07	100	0.97
569	5.94	34.47	600	5.80	34.49		27.20	88	1.07
773	4.90	34.51	700	5.27	34.51		27.28	80	1.16
1022	3.95	34.51	800	4.78	34.51		27.33	75	1.25
1357	3.06	34.67	1000	4.01	34.51		27.42	67	1.40

102.75
(17)

N. B. SCOFIELD; April 5, 1954; 1717 GCT; 29°51'N, 119°48'W; sounding, 1000 fm; wind, 340°, force 2; weather, cloudy; sea, slight; wire angle, 15°.

0	14.75	33.19	6.17	0	14.75	33.19	6.17	24.65	330	0.00
10	14.73	33.15	6.05	10	14.73	33.15	6.05	24.63	332	0.03
30	14.72	33.21	6.18	20	14.73	33.19	6.13	24.66	329	0.07
50	14.44	33.15	6.24	30	14.72	33.21	6.18	24.67	328	0.10
65	14.12	33.04	6.18	50	14.44	33.15	6.24	24.69	326	0.16
80	13.16	33.08	6.23	75	13.46	33.05	6.23	24.81	315	0.24
100	12.47	33.24	5.93	100	12.47	33.24	5.93	25.15	282	0.32
119	11.66	33.23	5.70	150	10.08	33.39	4.89	25.70	230	0.45
157	9.80	33.48	4.68	200	8.68	33.91	3.71	26.34	169	0.55
204	8.60	33.93	3.64	250	7.94	33.96	2.99	26.49	155	0.63
252	7.89	33.97	2.97	300	7.35	34.06	2.32	26.65	140	0.71
319	7.16	34.09	2.11	400	6.44	34.14	1.38	26.84	122	0.84
400	6.44	34.14	1.38	500	6.10	34.31	0.51	27.02	105	0.96
500	6.10	34.31	0.51	600	5.68	34.47	0.32	27.20	88	1.07
625	5.58	34.50	0.31	700	5.22	34.55	0.36	27.32	77	
793	4.82	34.60	0.43	800	(4.82)	(34.60)	(0.43)	(27.40)	(69)	

103.30

HORIZON; March 16, 1954; 0932 GCT; 31°07'N, 116°27.5'W; sounding, 42 fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	14.03	33.37	0	14.03	33.37		24.94	302	0.00
10	13.96	33.37	10	13.96	33.37		24.96	300	0.03
15	12.40	33.33	20	11.68	33.42		25.44	255	0.06
20	11.68	33.42	30	10.55	33.46		25.68	232	0.08
25	11.00	33.42	50	10.10	33.69		25.93	208	0.13
30	10.55	33.46							
35	10.39	33.55							
40	10.37	33.56							
50	10.10	33.69							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; March 16, 1954; 0418 GCT; 30°49'N, 117°07'W; sounding, 900 fm; wind, 320°, force 2; weather, clear; sea, smooth; wire angle, 20°. 103.40

0	15.5	33.30	0	15.5	33.30		24.57	338	0.00
10	15.46	33.40	10	15.46	33.40		24.66	329	0.03
30	15.34	33.35	20	15.39	33.38		24.66	329	0.07
44	13.81	33.24	30	15.34	33.35		24.65	330	0.10
53	13.37	33.28	50	13.47	33.27		24.98	299	0.16
62	13.06	33.25	75	12.37	33.25		25.18	280	0.24
71	12.52	33.26	100	10.61	33.41		25.63	237	0.30
80	12.16	33.22	150	9.47	33.90		26.20	183	0.41
94	10.87	33.32	200	8.97	34.10		26.44	160	0.49
103	10.50	33.46	250	8.43	34.21		26.61	144	0.57
126	9.86	33.62	300	8.16	34.27		26.70	135	0.64
153	9.42	33.95	400	7.34	34.32		26.86	120	0.78
203	8.92	34.11	500	6.28	34.34		27.02	105	0.90
263	8.32	34.23	600	5.73	34.38		27.12	95	1.00
370	7.73	34.31							
492	6.36	34.34							
625	5.64	34.40							

HORIZON; March 15, 1954; 1858 GCT; 30°10'N, 118°23'W; sounding, 1550 fm; wind, 320°, force 3; weather, partly cloudy; sea, slight; wire angle, 10°. 103.60

0	15.2	33.28	0	15.2	33.28		24.62	333	0.00
10	14.95	33.30	10	14.95	33.30		24.69	326	0.03
30	14.88	33.30	20	14.90	33.30		24.70	325	0.07
45	14.86	33.31	30	14.88	33.30		24.71	324	0.10
55	14.85	-	50	14.87	33.31		24.72	323	0.16
65	14.07	33.23a)	75	12.74	33.24		25.10	287	0.24
75	12.74	33.24	100	11.36	33.08		25.24	274	0.31
85	11.90	33.16	150	9.38	33.58		25.97	204	0.43
100	11.36	33.08	200	8.52	33.93		26.38	166	0.53
109	10.92	33.26	250	7.94	34.06		26.57	148	0.61
134	9.88	33.48	300	7.32	34.11		26.69	136	0.68
163	9.06	33.69	400	6.18	34.15		26.88	118	0.81
217	8.32	33.99	500	5.65	34.30		27.07	100	0.93
281	7.59	34.10	600	5.32	34.39		27.18	90	1.03
396	6.22	34.15							
527	5.55	34.34							
664	5.14	34.43							

N. B. SCOFIELD; March 15, 1954; 1807 GCT; 24°12'N, 130°00'W; sounding, 2000 fm; wind, 020°, force 3; weather, overcast; sea, moderate; wire angle, 06°. 103.240 (2)

0	18.88	34.62u	4.99	0	18.88	(34.49)	4.99	(24.68)	(327)	(0.00)
10	18.87	34.49	5.02	10	18.87	34.49	5.02	24.68	327	0.03
43	18.91	34.50	5.11	20	18.87	34.49	5.11	24.68	327	0.07
57	19.05	34.61u	4.91	30	18.88	34.49	5.12	24.68	327	0.10
67	19.08	34.57	4.88	50	18.99	34.53	5.03	24.68	327	0.16
88	19.09	34.60	5.11	75	19.10	34.59	4.96	24.70	325	0.25
103	-	34.58	5.15	100	18.85	34.59	5.14	24.77	319	0.33
113	18.21	34.35	5.48	150	16.50	34.22	5.45	25.05	292	0.48
117	-	34.40	5.55b)	200	12.97	33.91	4.95	25.57	242	0.62
122	17.88	34.33	5.34	250	10.05	33.87	4.35	26.08	194	0.73
132	17.31	34.30	5.55	300	8.75	34.00	3.46	26.40	164	0.82
171	15.50	34.09	5.21	400	7.40	34.19	1.81	26.75	130	0.97
225	10.95	33.83	4.72	500	6.76	34.31	0.70	26.93	113	1.10
371	7.60	34.14	2.23	600	5.84	34.30	0.69	27.04	103	1.22
513	6.68	34.31	0.68	700	5.22	34.31	0.77	27.12	95	1.33
643	5.53	34.30	0.71	800	4.78	34.42	0.88	27.26	82	1.42
811	4.75	34.42	0.88	1000	(4.05)	(34.43)	(0.73)	(27.35)	(74)	(1.60)
998	4.04	34.48	0.72							

a) Salinity sample at 65 meters was listed originally at 55 meters; it is assumed now to be listed correctly.

b) Alternate value, 5.27 ml/L; not used in interpolation.

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m
107.35	HORIZON; March 15, 1954; 0131 GCT; 30°19.5'N, 116°23'W; sounding, 1100 fm; wind, 270°, force 3; weather, cloudy; sea, moderate; wire angle, 25°.									
0	15.6	-		0	15.6	(33.49)		(24.70)	(325)	(0.00)
10	15.56	33.48		10	15.56	33.48		24.70	325	0.03
28	15.46	33.42		20	15.48	33.43		24.68	327	0.06
38	15.44	33.42		30	15.46	33.42		24.67	328	0.10
47	15.36	33.44		50	15.12	33.44		24.76	320	0.16
56	14.15	33.27		75	12.02	33.30		25.29	269	0.24
64	13.10	33.24		100	10.58	33.47		25.68	232	0.30
73	12.11	33.29		150	9.60	33.95		26.22	181	0.40
81	11.80	33.32		200	9.51	34.32		26.52	152	0.49
90	10.91	33.41		250	8.82	34.37		26.67	138	0.56
109	10.32	33.51		300	8.08	34.33		26.76	129	0.63
133	9.63	33.76		400	7.30	34.38		26.91	115	0.76
173	9.58	34.13		500	6.47	34.42		27.05	102	0.88
220	9.37	34.38								
305	8.03	34.33								
408	7.26	34.38								
525	6.26	34.43								
107.50	HORIZON; March 15, 1954; 0937 GCT; 29°50'N, 117°24'W; sounding, 1475 fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 05°.									
0	15.2	33.39		0	15.2	33.39		24.71	324	0.00
10	15.21	33.40		10	15.21	33.40		24.71	324	0.03
31	15.16	33.43		20	15.22	33.42		24.73	322	0.06
46	14.08	33.35		30	15.17	33.43		24.75	320	0.10
56	13.84	33.33		50	13.98	33.34		24.93	303	0.16
66	12.97	33.26		75	11.97	33.21		25.23	275	0.23
76	11.88	33.21		100	10.10	33.29		25.62	238	0.30
86	11.09	33.28		150	8.87	33.73		26.17	185	0.40
100	10.10	33.29		200	8.08	34.00		26.50	154	0.49
110	9.66	33.41		250	8.18	34.13		26.58	146	0.57
135	9.12	33.64		300	8.20	34.36		26.76	129	0.64
165	8.62	33.86		400	7.08	34.31		26.89	117	0.77
219	7.96	34.04		500	6.13	34.36		27.05	102	0.88
283	8.28	34.35		600	5.49	34.41		27.17	91	0.99
398	7.13	34.31								
529	5.96	34.38								
666	5.18	34.43								
108.95 (16)	N. B. SCOFIELD; April 4, 1954; 1710 GCT; 27°58'N, 120°15'W; sounding, 1000 fm; wind, 020°, force 1; weather, overcast; sea, slight; wire angle, 05°.									
0	16.28	33.48	5.98	0	16.28	33.48	5.98	24.54	340	0.00
10	16.28	33.46	5.85	10	16.28	33.46	5.85	24.52	342	0.03
77	15.86	33.39	5.92	20	16.25	33.45	5.87	24.52	342	0.07
98	14.54	33.42	5.92	30	16.22	33.44	5.88	24.52	342	0.10
108	13.72	33.35	5.78	50	16.12	33.42	5.89	24.53	341	0.17
114	13.47	33.30	5.63	75	15.90	33.39	5.92	24.55	340	0.26
119	13.40	33.32	5.52	100	14.38	33.42	5.92	24.91	305	0.34
129	12.76	33.33	5.23	150	11.52	33.54	4.25	25.57	242	0.48
154	11.32	33.58	4.07	200	10.52	34.10	2.10	26.17	185	0.59
204	10.45	34.14	2.07	250	9.68	34.30	1.90	26.48	156	0.67
263	9.46	34.31	1.84	300	8.93	34.30	1.48	26.60	145	0.75
332	8.56	34.29	1.13	400	8.07	34.31	0.76	26.74	131	0.90
418	7.92	34.32	0.67	500	6.89	34.39	0.45	26.97	110	1.02
523	6.68	34.41	0.39	600	6.07	34.46	0.30	27.14	93	1.13
653	5.72	-	0.28	700	5.43	34.51	0.31	27.26	82	1.23
825	4.78	34.55	0.49	800	4.90	34.54	0.47	27.34	74	1.32
1012	4.14	34.58	0.50	1000	4.17	34.58	0.50	27.46	63	1.47

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 cm^3/g$	dyn. m

HORIZON; March 14, 1954; 1037 GCT; 29°50.5'N, 115°52.5'W; sounding, 55 fm; wind, 120°, force 2; weather, cloudy; sea, rough; wire angle, 00°. 110.33

0	12.25		0	12.25					
10	11.42		10	11.42					
15	11.18		20	11.16					
21	11.14		30	10.82					
26	11.12		50	9.88					
31	10.77								
36	10.56								
41	10.24								
52	9.82								

HORIZON; March 14, 1954; 1227, 1317 GCT; 29°30'N, 116°25.5'W; sounding, 1120 fm; wind, 320°, force 4; weather, clear; sea, very rough; wire angle, 27°, 20°. 110.40

0	15.3	33.36	0	15.3	33.36	24.66	329	0.00
10	15.10	33.38	10	15.10	33.38	24.72	323	0.03
25	15.10	33.36	20	15.10	33.37	24.72	323	0.06
54	14.86	33.33	30	15.08	33.35	24.70	325	0.10
64	14.60	33.30	50	14.91	33.34	24.73	322	0.16
			75	13.29	33.27	25.02	295	0.24
73	13.44	33.27	100	11.80	33.29	25.32	266	0.31
88	12.64	33.26	150	9.97	33.61	25.89	212	0.43
107	11.31	33.40	200	9.52	34.10	26.35	168	0.53
131	10.10	33.49	250	8.72	34.20	26.56	148	0.61
160	9.93	33.89	300	8.13	34.26	26.69	136	0.68
212	9.32	34.13	400	7.53	34.32	26.83	123	0.82
289	8.23	34.25	500	6.78	34.35	26.96	110	0.94
395	7.58	34.32	600	6.00	34.38	27.08	99	1.05
535	6.50	34.36	700	5.38	34.41	27.18	90	1.16
724	5.22	34.42	800	4.85	34.44	27.27	81	1.25
959	4.18	34.47	1000	4.06	34.48	27.39	70	1.42
1271	3.37	34.55						

HORIZON; March 14, 1954; 0144 GCT; 28°56'N, 117°39'W; sounding, 2000 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 05°. 110.60

0	16.4	33.32	0	16.4	33.32	24.39	355	0.00
10	15.20	33.25	10	15.20	33.25	24.60	335	0.04
26	15.20	33.30	20	15.22	33.28	24.62	333	0.07
57	14.36	33.25	30	15.17	33.30	24.65	330	0.10
67	13.56	33.18	50	14.73	33.28	24.73	322	0.17
77	12.74	33.18	75	12.89	33.18	25.03	294	0.24
92	11.62	33.20	100	10.88	33.23	25.44	255	0.31
111	10.20	33.40	150	9.50	33.77	26.10	192	0.43
136	9.60	33.60	200	8.61	34.02	26.43	161	0.52
165	9.32	33.95	250	8.17	34.09	26.56	148	0.60
221	8.36	34.04	300	7.89	34.21	26.69	136	0.67
301	7.88	34.21	400	7.10	34.27	26.85	121	0.80
411	7.00	34.27	500	6.29	34.32	27.00	107	0.92
555	5.94	34.35	600	5.69	34.37	27.12	95	1.03
750	5.01	34.42	700	5.25	34.40	27.19	89	1.13
992	4.08	34.49	800	4.82	34.44	27.27	81	1.22
1310	3.30	34.54	1000	4.07	34.49	27.40	69	1.39

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
110.80	HORIZON; March 13, 1954; 1524 GCT; 28°15'N, 118°45.5'W; sounding, 2200 fm; wind, 300°, force 4; weather, cloudy; sea, very rough; wire angle, 16°.									
0	16.2	33.51		0	16.2	33.51		24.58	337	0.00
10	16.26	33.41		10	16.26	33.41		24.49	345	0.03
25	16.27	33.47		20	16.25	33.45		24.52	342	0.07
54	16.29	33.44		30	16.26	33.48		24.54	340	0.10
64	16.28	33.45		50	16.28	33.44		24.51	343	0.17
73	16.29	33.47		75	16.29	33.47		24.53	341	0.26
87	15.95	33.44		100	14.88	33.39		24.78	318	0.34
106	14.32	33.37		150	11.37	33.41		25.49	250	0.48
129	13.04	33.44		200	9.20	33.66		26.06	196	0.60
157	10.90	33.31		250	8.38	33.96		26.42	162	0.69
206	9.09	33.76		300	7.62	34.08		26.63	142	0.77
280	7.95	34.05		400	6.68	34.16		26.82	124	0.90
380	6.78	34.14		500	6.32	34.31		26.99	108	1.03
515	6.24	34.34		600	5.72	34.40		27.14	93	1.14
697	5.22	34.43		700	5.20	34.43		27.22	86	1.23
925	4.38	34.47		800	4.82	34.45		27.28	80	1.32
1231	3.46	34.52		1000	4.13	34.48		27.38	71	1.49
110.175 (8)	N. B. SCOFIELD; March 22, 1954; 1755 GCT; 25°16'N, 125°08'W; sounding, 2000 fm; wind, 330°, force 5; weather, drizzle; sea, moderate; wire angle, 24°.									
0	17.58	33.87	5.45	0	17.58	33.87	5.45	24.53	341	0.00
10	17.59	33.75	5.57	10	17.59	33.75	5.57	24.44	350	0.04
48	17.48	33.82	5.60	20	17.58	33.75	5.61	24.44	350	0.07
101	17.39	33.99	5.46	30	17.55	33.77	5.62	24.46	348	0.10
105	17.38	33.95	5.58	50	17.47	33.83	5.60	24.53	341	0.17
109	17.31	33.96	5.44	75	17.42	33.92	5.53	24.61	334	0.26
118	17.21	33.87	5.52	100	17.39	33.99	5.46	24.67	328	0.34
132	15.60	33.86	5.38	150	14.15	33.64	5.27	25.13	284	0.50
151	14.12	33.64	5.25	200	10.80	33.75	4.60	25.86	215	0.62
195	11.09	33.72	4.70	250	9.22	33.97	3.20	26.30	173	0.72
240	9.43	33.93	3.35	300	8.46	34.11	2.73	26.53	151	0.81
302	8.44	34.11	2.69	400	7.57	34.22	1.10	26.75	130	0.96
377	7.80	34.18	1.23	500	6.55	34.38	0.82	27.01	106	1.08
471	6.85	34.38	0.89	600	5.79	34.34	0.32	27.08	99	1.19
590	5.86	34.34	0.32	700	5.23	34.34	0.32	27.15	92	1.29
752	5.00	34.34	0.31	800	4.79	34.35	0.34	27.21	87	1.39
934	4.20	34.48	0.61	1000	(3.94)	(34.54)		(27.45)	(64)	(1.56)
113.35	HORIZON; March 12, 1954; 1349, 1428 GCT; 29°11'N, 115°39.5'W; sounding, 720 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 43°, 46°.									
0	14.5	33.30		0	14.5	33.30		24.79	317	0.00
9	14.58	33.31		10	14.57	33.31		24.78	318	0.03
24	14.58	33.26		20	14.58	33.27		24.75	320	0.06
35	14.54	33.37		30	14.57	33.32		24.79	317	0.10
43	14.37	33.24		50	13.37	33.16		24.92	304	0.16
49	13.46	33.17		75	11.23	33.18		25.34	264	0.23
56	12.82	33.15		100	10.24	33.52		25.78	222	0.29
63	12.09	33.28								
73	11.38	33.18								
80	10.92	33.18								
82	10.83	33.22								
99	10.28	33.51								
134	9.78	33.78								

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

HORIZON; March 13, 1954; 0021, 0049 GCT; 28°45'N, 116°43'W; sounding, 1700 fm; wind, 280°, force 4; weather, cloudy; sea, high; wire angle, 15°, 10°. 113.50

0	15.7	33.40	0	15.7	33.40	24.61	334	0.00
10	15.59	33.41	10	15.59	33.41	24.64	331	0.03
30	15.46	33.40	20	15.47	33.40	24.66	329	0.07
45	15.47	33.40	30	15.46	33.40	24.66	329	0.10
55	15.04	33.35	50	15.30	33.39	24.69	326	0.16
			75	14.42	33.42	24.90	306	0.24
65	14.66	33.31	100	12.21	33.24	25.20	278	0.32
75	14.42	33.42	150	9.62	33.57	25.92	209	0.44
85	13.91	33.31	200	8.87	34.01	26.38	166	0.54
100	12.21	33.24	250	8.38	34.11	26.54	150	0.62
110	11.64	33.31	300	7.94	34.20	26.68	137	0.69
134	10.38	33.44	400	7.22	34.36	26.91	115	0.82
164	9.30	33.78	500	6.52	34.38	27.02	105	0.94
218	8.70	34.06	600	5.82	34.40	27.12	95	1.05
282	8.08	34.16						
396	7.26	34.36						
527	6.38	34.38						
665	5.40	34.44						

HORIZON; March 12, 1954; 0037 GCT; 28°47'N, 114°55'W; sounding, 55 fm; wind, 320°, force 7; weather, partly cloudy; sea, very high; wire angle, 47°. 117.30

0	14.03	33.44	0	14.03	33.44	25.00	297	0.00
9	14.05	33.41	10	14.04	33.41	24.97	300	0.03
12	14.02	33.42	20	14.02	33.42	24.98	299	0.06
16	14.00	33.43	30	13.60	33.46	25.10	287	0.09
19	14.02	33.42	50	10.71	33.45	25.64	236	0.14
23	14.00	33.43						
27	13.94	33.44						
34	12.77	33.64						
40	11.35	33.42						
51	10.66	33.46						

HORIZON; March 11, 1954; 1747 GCT; 28°27.5'N, 115°36'W; sounding, 550 fm; wind, 320°, force 6; weather, cloudy; sea, high; wire angle, 25°. 117.40

0	14.66	33.35	0	14.66	33.35	24.79	317	0.00
10	-	33.35	10	14.64	33.35	24.80	316	0.03
15	14.64	33.37	20	14.64	33.38	24.82	314	0.06
19	14.63	33.39	30	14.62	33.37	24.82	314	0.10
24	14.64	33.33	50	14.57	33.28	24.76	320	0.16
29	14.61	33.37	75	12.98	33.22	25.04	293	0.24
34	14.63	33.28	100	10.93	33.23	25.43	256	0.30
43	14.58	33.28	150	9.98	33.91	26.13	189	0.42
52	14.54	33.28	200	9.70	34.17	26.37	166	0.51
65	13.76	33.22	250	(9.68)	(34.40)	(26.56)	(148)	(0.59)
79	12.66	33.22						
97	11.05	33.23						
126	10.38	33.68						
159	9.86	33.96						
193	9.72	34.13						
243	9.67	34.37						

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m
117.60	HORIZON; March 11, 1954; 0428 GCT; 27°47.5'N, 116°54'W; sounding, 2000 fm; wind, 320°, force 6; weather, overcast; sea, rough; wire angle, 40°.									
0	15.9	33.27		0	15.9	33.27		24.46	348	0.00
9	15.79	33.29		10	15.79	33.29		24.50	344	0.04
24	15.79	33.26		20	15.79	33.26		24.48	346	0.07
36	15.80	33.28		30	15.80	33.27		24.48	346	0.10
44	15.76	33.28		50	15.62	33.27		24.52	342	0.17
50	15.62	33.27		75	15.17	33.23		24.59	336	0.26
58	15.60	33.33		100	14.52	33.40		24.86	310	0.34
66	15.37	33.25		150	10.61	33.47		25.67	233	0.48
76	15.14	33.23		200	9.52	33.96		26.24	179	0.58
83	14.66	33.17		250	9.00	34.12		26.45	159	0.67
102	14.49	33.40		300	8.49	34.20		26.59	146	0.75
124	12.40	33.32		400	7.42	34.30		26.83	123	0.89
163	10.16	33.56		500	6.67	34.34		26.97	110	1.01
210	9.40	34.01								
293	8.56	34.19								
395	7.47	34.30								
515	6.58	34.34								
118.110 (15)	N. B. SCOFIELD; April 3, 1954; 1718 GCT; 26°01'N, 120°00'W; sounding, 1000 fm; wind, 020°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.									
0	17.52	34.02	5.81	0	17.52	34.02	5.81	24.66	329	0.00
10	17.52	34.02	5.78	10	17.52	34.02	5.78	24.66	329	0.03
50	17.29	34.00	5.87	20	17.49	34.02	5.80	24.67	328	0.07
60	14.08	33.33	6.06	30	17.48	34.01	5.81	24.66	329	0.10
70	13.47	33.35	5.65	50	17.29	34.00	5.87	24.70	325	0.16
90	11.94	33.40	4.95	75	13.11	33.38	5.37	25.14	283	0.24
109	10.89	33.44	4.79	100	11.42	33.41	4.84	25.48	251	0.31
128	11.06	33.78	3.43	150	10.78	33.96	2.70	26.03	199	0.42
138	10.92	33.91	2.95							
184	10.34	34.15	2.15							
119.190 (9)	N. B. SCOFIELD; March 23, 1954; 1937, 1951 GCT; 23°10'N, 125°04'W; sounding, 2000 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 25°, 26°.									
0	18.47	34.14	5.33	0	18.47	34.14	5.33	24.52	342	0.00
10	18.45	34.02	5.60	10	18.45	34.02	5.60	24.43	351	0.04
				20	(18.45)	(34.03)	(5.57)	(24.44)	(350)	(0.07)
59	18.52	34.26	5.46	30	(18.45)	(34.05)	(5.55)	(24.45)	(349)	(0.10)
93	18.68	34.41	5.46	50	(18.48)	(34.18)	(5.49)	(24.55)	(340)	(0.17)
116	18.57	34.38	5.33	75	18.61	34.36	5.47	24.65	330	(0.26)
126	18.32	34.34	5.41	100	18.67	34.41	5.44	24.67	328	(0.34)
135	17.66	34.20	5.32	150	16.20	33.99	5.29	24.95	301	(0.50)
154	15.84	33.93	5.27	200	11.73	33.77	4.65	25.71	229	(0.64)
173	14.06	33.75	5.21	250	9.82	33.99	3.65	26.21	182	(0.74)
191	12.42	33.75	4.92	300	8.84	34.12	2.72	26.48	156	(0.83)
215	10.89	33.86	4.24	400	7.57	34.31	1.15	26.82	124	(0.97)
248	9.86	33.98	3.67	500	6.69	34.39	0.42	27.00	107	(1.10)
286	9.06	34.13	2.92	600	5.99	34.44	0.42	27.13	94	(1.20)
391	7.66	34.30	1.26							
518	6.56	34.40	0.41							
660	5.60	34.46	0.42							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

120.25

HORIZON; March 9, 1954; 0201. 0214 GCT; 28°22.5'N, 114°15'W; sounding, 30 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 07°, 06°.

0	15.58	-	0	15.58	(33.48)	(24.69)	(326)	(0.00)
11	15.57	33.48	10	15.58	33.48	24.69	326	0.03
16	15.40	33.52	20	15.38	33.49	24.75	320	0.06
21	15.36	33.49	30	13.90	33.48	25.05	292	0.10
26	14.77	33.52						
31	13.71	33.46						
36	12.96	33.46						
42	12.08	33.42						

120.35

HORIZON; March 9, 1954; 0726, 0747, 0800 GCT; 28°03'N, 114°53.5'W; sounding, 50 fm; wind, 290°, force 3; weather, clear; sea, slight; wire angle, 00°, 00°, 00°.

0	16.0	-	0	16.0	(33.62)	(24.71)	(324)	(0.00)
10	15.84	33.62	10	15.84	33.62	24.74	321	0.03
15	15.82	33.60	20	15.77	33.58	24.73	322	0.06
22	15.72	33.58	30	15.66	33.59	24.76	320	0.10
26	15.69	-	50	15.12	33.57	24.86	310	0.16
			75	(12.10)	(33.54)	(25.46)	(253)	(0.23)
31	15.64	33.59						
36	15.62	33.60						
46	15.52	33.60						
56	14.21	33.47						
71	12.48	33.52						

120.50

HORIZON; March 9, 1954; 1659 GCT; 27°31.5'N, 115°52'W; sounding, 2300 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 16°.

3	15.6	33.50	0	15.6	(33.50)	(24.70)	(325)	(0.00)
13	15.48	33.49	10	15.54	33.49	24.71	324	0.03
28	15.42	-	20	15.43	33.49	24.73	322	0.06
58	15.23	33.70	30	15.42	33.50	24.74	321	0.10
67	14.42	33.62	50	15.33	33.69	24.91	305	0.16
77	13.30	33.57	75	13.41	33.57	25.22	276	0.23
91	12.77	33.82	100	12.58	33.90	25.64	236	0.30
111	12.36	33.96	150	11.24	34.22	26.14	188	0.40
135	11.54	34.12	200	10.55	34.43	26.43	161	0.49
163	11.04	34.29	250	9.98	34.54	26.62	143	0.57
215	10.40	34.47	300	9.31	34.57	26.75	130	0.64
291	9.46	34.57	400	7.86	34.58	26.99	108	0.77
396	7.92	34.58	500	6.82	34.54	27.10	97	0.88
535	6.57	34.51	600	6.12	34.47	27.14	93	0.98
726	5.42	34.45	700	5.56	34.45	27.19	89	1.08
962	4.20	34.52	800	4.99	34.46	27.27	81	1.17
1276	3.34	34.57	1000	4.07	34.53	27.43	66	1.34

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

120.70 HORIZON; March 10, 1954; 0305 GCT; 26°58'N, 117°17'W; sounding, 2100 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 17°.

0	16.1	33.52	0	16.1	33.52	24.61	334	0.00
10	16.26	33.50	10	16.26	33.50	24.56	339	0.03
25	16.58	33.70	20	16.57	33.68	24.62	333	0.07
54	14.80	33.44	30	16.37	33.68	24.67	328	0.10
63	14.42	33.48	50	15.00	33.44	24.79	317	0.16
73	13.08	33.33	75	12.88	33.33	25.14	283	0.24
87	11.96	33.42	100	11.18	33.47	25.57	242	0.31
106	10.92	33.48	150	10.63	34.05	26.12	190	0.42
129	10.64	33.68	200	10.13	34.29	26.40	164	0.51
157	10.60	34.11	250	9.54	34.37	26.56	148	0.59
209	10.02	34.31	300	9.04	34.41	26.67	138	0.66
284	9.20	34.40	400	8.10	34.43	26.83	123	0.80
387	8.28	34.43	500	6.90	34.38	26.97	110	0.92
524	6.68	34.38	600	6.07	34.39	27.08	99	1.03
709	5.38	34.42	700	5.42	34.42	27.19	89	1.14
938	4.29	34.46	800	4.88	34.44	27.27	81	1.23
1250	3.43	34.52	1000	4.07	34.47	27.38	71	1.40

120.90 HORIZON; March 10, 1954; 1258, 1335 GCT; 26°13'N, 118°27.5'W; sounding, 2300 fm; wind, 320°, force 5; weather, missing; sea, rough; wire angle, 35°, 47°.

0	16.5	33.57	0	16.5	33.57	24.55	340	0.00
10	16.44	33.65	10	16.44	33.65	24.63	332	0.03
23	16.38	33.59	20	16.40	33.61	24.61	334	0.07
48	14.99	33.52	30	16.10	33.56	24.64	331	0.10
56	14.04	33.58	50	14.78	33.53	24.91	305	0.16
64	12.82	33.32	75	11.77	33.34	25.36	262	0.24
76	11.72	33.34	100	11.28	33.56	25.63	237	0.30
91	11.47	33.49	150	11.08	34.27	26.21	182	0.40
109	11.12	33.61	200	9.59	34.17	26.39	164	0.49
133	11.16	33.94	250	8.66	34.16	26.53	151	0.57
175	10.78	34.30	300	8.30	34.29	26.69	136	0.65
			400	7.34	34.34	26.87	119	0.78
218	8.94	34.13	500	6.72	34.40	27.01	106	0.90
296	8.35	34.28	600	6.16	34.47	27.13	94	1.01
404	7.30	34.34	700	5.40	34.51	27.26	82	1.10
552	6.44	34.44	800	4.77	34.52	27.34	74	1.19
745	5.10	34.52	1000	3.98	34.50	27.41	68	1.35
1034	3.89	34.49						

120.275 (1) N. B. SCOFIELD; March 13, 1954; 1905 GCT; 20°09'N, 130°08'W; sounding, 2000 fm; wind, 050°, force 5; weather, overcast; sea, very rough; wire angle, 25°.

0	21.42	34.44	0	21.42	34.44	23.97	395	0.00
9	21.43	34.44	10	21.42	34.44	23.97	395	0.04
35	20.42	34.74	20	21.11	34.60	24.18	375	0.08
63	20.28	34.76	30	20.56	34.71	24.41	353	0.11
80	20.16	34.73	50	20.32	34.76	24.51	343	0.18
98	19.64	34.67	75	20.20	34.74	24.53	341	0.27
114	19.28	34.62	100	19.60	34.66	24.63	332	0.36
132	18.53	34.52	150	17.60	34.44	24.96	300	0.52
163	16.61	34.36	200	12.90	34.03	25.68	232	0.65
193	13.43	34.03	250	10.24	34.11	26.24	179	0.76
269	9.57	34.14						

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

123.40

HORIZON; March 8, 1954; 1453 GCT; 27°21.5'N, 114°53.5'W; sounding, 290 fm; wind, 300°. force 2; weather, clear; sea, moderate; wire angle, 13°.

0	15.3	33.68	0	15.3	33.68	24.91	305	0.00
10	15.25	33.69	10	15.25	33.69	24.93	303	0.03
15	15.24	-	20	15.28	33.71	24.94	302	0.06
20	15.28	33.71	30	14.86	33.72	25.04	293	0.09
25	15.22	33.74	50	12.45	33.84	25.62	238	0.14
30	14.86	33.72	75	11.58	33.91	25.84	217	0.20
40	14.26	33.89	100	11.32	34.08	26.02	200	0.25
50	12.45	33.84	150	10.92	34.50	26.42	162	0.34
65	11.67	33.86	200	10.34	34.50	26.52	152	0.43
79	11.55	33.93	250	9.81	34.51	26.62	143	0.50
98	11.34	34.07	300	8.98	34.48	26.73	132	0.57
122	11.15	34.16	400	7.76	34.40	26.86	120	0.70
160	10.82	34.51						
198	10.37	34.50						
247	9.88	34.51						
322	8.64	34.46						
403	7.73	34.40						

123.60

HORIZON; March 8, 1954; 0137 GCT; 26°38.5'N, 116°09.5'W; sounding, 2100 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 32°.

0	16.9	33.87	0	16.9	33.87	24.69	326	0.00
10	16.80	33.86	10	16.80	33.86	24.71	324	0.03
27	16.68	33.85	20	16.69	33.85	24.72	323	0.06
40	16.68	33.92	30	16.68	33.86	24.73	322	0.10
48	16.66	33.87	50	16.63	33.87	24.75	320	0.16
56	16.43	33.87	75	13.52	33.64	25.26	272	0.24
64	15.44	33.69	100	11.92	34.01	25.86	215	0.30
72	14.08	33.68	150	10.92	33.98	26.02	200	0.40
84	11.96	33.48	200	10.65	34.45	26.43	161	0.50
90	11.78	33.68	250	9.89	34.46	26.57	148	0.58
107	11.96	34.04	300	9.14	34.46	26.69	136	0.65
129	10.82	33.96	400	7.88	34.46	26.89	117	0.78
165	10.95	34.35	500	6.85	34.45	27.03	104	0.90
211	10.50	34.46						
292	9.28	34.46						
394	7.94	34.46						
517	6.70	34.45						

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
126.125 (14)	N. B. SCOFIELD; April 2, 1954; 1707, 1813, 1830 GCT; 24°04'N, 119°58'W; sounding, 1000 fm; wind, 020°, force 4; weather, cloudy; sea, rough; wire angle, 02°, 16°, 16°.									
0	17.88	33.79	-	0	17.88	33.79	5.70	24.40	354	0.00
10	17.88	33.75	-	10	17.88	33.75	5.78	24.37	357	0.04
21	17.87	33.77	-	20	17.87	33.77	5.77	24.38	356	0.07
31	17.88	33.75	-	30	17.87	33.75	5.76	24.37	357	0.11
42	17.88	33.78	-	50	17.98	33.87	5.75	24.43	351	0.18
52	17.98	34.03u	-	75	17.34	33.86	5.74	24.58	337	0.26
62	17.77	33.89	-	100	16.93	34.07	5.72	24.86	310	0.35
73	17.34	33.86	-	150	13.00	33.68	5.23	25.39	260	0.49
83	17.45	33.87	-	200	10.28	33.87	3.27	26.04	198	0.61
94	17.73	34.11	-	250	9.73	34.11	1.82	26.32	171	0.70
104	16.25	33.97	-	300	8.75	34.17	1.31	26.53	151	0.78
				400	7.48	34.42	0.72	26.92	114	0.92
0	17.90	33.82	5.70	500	6.57	34.45	0.38	27.07	100	1.04
				600	5.82	34.45	0.36	27.16	92	1.14
10a)	17.90	-	5.78	700	5.18	34.48	0.37	27.26	82	1.24
83	17.66	33.89	5.73	800	4.76	34.53	0.43	27.35	74	1.32
88	17.34	33.84	5.76	1000	(4.11)	(34.61)		(27.49)	(60)	(1.47)
93	17.16	33.90	5.83							
102	17.62	34.05	5.70							
112	-	33.82	5.79							
126	14.91	33.69	5.51							
154	12.67	33.68	5.16							
181	10.47	33.77	4.38							
236	9.95	34.18	2.01							
310	8.60	34.18	1.23							
390	7.56	34.41	0.78							
488	6.68	34.45	0.41							
611	5.72	34.45	0.36							
777	4.84	34.52	0.43							
959	4.22	34.60	0.56							
127.34	HORIZON; March 7, 1954; 0600 GCT; 26°55'N, 114°06.5'W; sounding, 55 fm; wind, 030°, force 6; weather, clear; sea, moderate; wire angle, 13°.									
0	15.56	33.82		0	15.56	33.82		24.96	300	0.00
10	15.54	33.71		10	15.54	33.71		24.88	308	0.03
15	15.46	33.75		20	15.34	33.77		24.97	300	0.06
20	15.34	33.77		30	14.40	33.81		25.20	278	0.09
25	15.06	33.76		50	12.84	33.80		25.52	247	0.14
30	14.40	33.81								
35	13.94	33.71								
40	13.24	33.65								
50	12.84	33.80								

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; March 7, 1954; 1550 GCT; 26°12.5'N, 115°13'W; sounding, 2000 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 22°. 127.50

0	18.7	34.27	0	18.7	34.27		24.56	339	0.00
10	18.71	34.29	10	18.71	34.29		24.57	338	0.03
29	18.72	34.31	20	18.73	34.31		24.58	337	0.07
43	18.72	34.23	30	18.73	34.31		24.58	337	0.10
53	18.70	34.31	50	18.72	34.30		24.58	337	0.17
63	18.71	34.28	75	14.65	33.90		25.22	276	0.25
72	15.45	33.95	100	12.63	33.99		25.70	230	0.31
82	13.84	33.87	150	11.13	34.17		26.13	189	0.42
96	12.98	33.99	200	10.97	34.43		26.36	167	0.51
106	12.24	33.98	250	10.65	34.57		26.52	152	0.59
129	11.71	34.33	300	9.64	34.58		26.70	135	0.66
158	11.00	34.16	400	8.02	34.41		26.83	123	0.80
211	10.98	34.48	500	7.02	34.42		26.98	109	0.92
275	10.28	34.58	600	6.12	34.39		27.08	99	1.04
387	8.20	34.41							
515	6.90	34.42							
649	5.70	34.36							

N. B. SCOFIELD; March 24, 1954; 1742 GCT; 20°44'N, 124°55'W; sounding, 2000 fm; wind, 060°, force 3; weather, partly cloudy; sea, rough; wire angle, 10°. 129.210 (10)

0	20.18	34.66	5.29	0	20.18	34.66	5.29	24.47	347	0.00
10	20.19	34.61	5.45	10	20.19	34.61	5.45	24.43	351	0.04
36	20.18	34.58	5.54	20	20.18	34.59	5.51	24.42	352	0.07
71	19.77	34.57	5.23	30	20.18	34.58	5.54	24.41	353	0.10
100	18.74	34.41	5.39	50	20.06	34.58	5.44	24.45	349	0.18
115	18.32	34.39	5.40	75	19.65	34.56	5.24	24.54	340	0.26
125	17.95	34.28	5.30	100	18.74	34.41	5.39	24.66	329	0.35
134	17.00	33.98	5.35	150	15.10	34.14	4.80	25.31	267	0.50
144	15.70	34.14	5.12	200	11.59	34.04	2.01	25.94	207	0.62
188	11.90	34.02	2.85	250	10.78	34.49	0.42	26.44	160	0.71
245	10.85	34.47	0.43	300	10.10	34.60	0.34	26.64	141	0.79
312	9.97	34.60	0.33	400	8.80	34.51	0.30	26.79	127	0.93
403	8.72	34.51	0.28	500	7.51	34.50	0.23	26.97	110	1.06
504	7.48	34.50	0.22	600	6.60	34.47	0.24	27.08	99	1.17
631	6.37	34.47	0.24	700	5.90	34.48	0.25	27.18	90	1.28
801	5.32	34.52	0.29	800	5.33	34.52	0.29	27.28	80	1.37
984	4.46	34.51	0.45	1000	(4.40)	(34.51)	(0.48)	(27.38)	(71)	(1.54)

HORIZON; March 7, 1954; 0051 GCT; 26°29.5'N, 113°29'W; sounding, 45 fm; wind, 300°, force 5; weather, partly cloudy; sea, rough; wire angle, 11°. 130.30

0	16.46	33.93	0	16.46	33.93		24.84	312	0.00
10	15.91	33.89	10	15.91	33.89		24.93	303	0.03
15	14.92	33.87	20	14.52	33.87		25.22	276	0.06
20	14.52	33.87	30	14.16					
25	14.36		50	13.29					
30	14.16								
35	13.79								
41	13.82								
51	13.21								

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
130.40	HORIZON; March 6, 1954; 1912 GCT; 26°07'N, 114°09'W; sounding, 1200 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 20°.									
2	18.2	34.16		0	18.2	(34.16)		(24.60)	(335)	(0.00)
12	18.03	34.26		10	18.10	34.26		24.70	325	0.03
27	18.00	34.22		20	18.01	34.23		24.70	325	0.07
56	17.68	34.30		30	17.99	34.22		24.70	325	0.10
65	16.99	34.05		50	17.79	34.30		24.81	315	0.16
75	14.56	34.09		75	14.56	34.09		25.39	260	0.24
89	13.21	33.73u		100	13.13	33.97		25.59	241	0.30
108	13.08	34.07		150	11.40	34.29		26.17	185	0.41
130	12.46	34.24		200	10.78	34.55		26.48	156	0.49
158	11.15	34.31		250	10.29	34.62		26.63	142	0.57
207	10.73	34.57		300	9.69	34.61		26.72	133	0.64
280	9.92	34.62		400	8.48	34.53		26.85	121	0.78
381	8.71	34.54		500	7.11	34.51		27.04	103	0.90
515	6.94	34.51		600	6.21	34.51		27.16	92	1.00
698	5.60	34.52		700	5.57	34.52		27.25	83	1.10
929	4.46	34.57		800	5.03	34.54		27.33	75	1.18
1238	3.49	34.60		1000	4.20	34.59		27.46	63	1.34
130.60	HORIZON; March 6, 1954; 0830 GCT; 25°24'N, 115°27'W; sounding, 2150 fm; wind, 320°, force 4; weather, missing; sea, rough; wire angle, 14°.									
0	17.9	34.22		0	17.9	34.22		24.72	323	0.00
10	17.85	34.17		10	17.85	34.17		24.69	326	0.03
25	17.86	34.22		20	17.86	34.20		24.71	324	0.06
55	17.20	34.12		30	17.82	34.21		24.73	322	0.10
65	16.42	34.24		50	17.40	34.13		24.77	319	0.16
75	13.50	33.76		75	13.50	33.76		25.35	263	0.24
89	12.23	33.80		100	11.72	33.88		25.79	222	0.30
108	11.47	34.04		150	10.92	34.28		26.25	178	0.40
133	11.10	34.22		200	9.95	34.38		26.50	154	0.48
162	10.76	34.31		250	9.32	34.43		26.64	141	0.56
215	9.72	34.40		300	8.82	34.45		26.74	131	0.63
291	8.91	34.45		400	7.73	34.47		26.92	114	0.76
397	7.78	34.47		500	6.82	34.47		27.05	102	0.87
538	6.50	34.47		600	5.90	34.47		27.17	91	0.98
728	5.12	-		700	5.27	34.47		27.25	83	1.07
966	4.20	34.47		800	4.78	34.47		27.30	78	1.16
1282	3.36	34.53		1000	4.08	34.47		27.38	71	1.33
133.30	HORIZON; March 5, 1954; 1555 GCT; 25°55.5'N, 113°08'W; sounding, 100 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 07°.									
0	17.74	-		0	17.74	(34.15)		(24.70)	(325)	(0.00)
10	17.74	34.16		10	17.74	34.16		24.71	324	0.03
15	17.74	34.40u		20	17.73	34.12		24.68	327	0.07
20	17.73	34.25u		30	17.73	34.09		24.66	329	0.10
25	17.74	34.11		50	14.30	33.79		25.21	277	0.16
30	17.73	34.09		75	13.13	33.95		25.57	242	0.22
35	17.54	34.06		100	12.62	34.20		25.87	214	0.28
45	15.09	33.87		150	11.72	34.52		26.29	174	0.38
55	13.81	33.78								
65	13.38	33.86								
80	13.03	33.98								
100	12.62	34.20								
120	12.36	34.44								
155	11.60	34.53								

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; March 6, 1954; 0146 GCT; 25°15'N, 114°24.5'W; sounding, 1900 fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 25°. 133.50

0	19.1	34.22	0	19.1	34.22		24.42	352	0.00
10	19.02	34.23	10	19.02	34.23		24.45	349	0.04
29	19.02	34.24	20	19.04	34.23		24.44	350	0.07
38	18.95	34.25	30	19.02	34.24		24.46	348	0.10
52	18.88	34.23	50	18.88	34.24		24.49	345	0.18
60	17.71	34.13	75	14.97	33.98		25.21	277	0.25
69	15.58	33.97	100	14.11	34.45		25.76	224	0.32
78	14.78	34.06	150	12.69	34.59		26.16	186	0.42
91	14.43	34.27	200	11.49	34.65		26.43	161	0.51
99	14.14	34.44	250	10.54	34.63		26.59	146	0.59
121	13.57	34.52	300	9.50	34.57		26.72	133	0.66
148	12.74	34.59	400	7.54	34.47		26.95	111	0.79
197	11.56	34.65	500	6.32	34.43		27.08	99	0.90
256	10.44	34.62	600	5.80	34.46		27.17	91	1.00
363	8.24	34.50							
487	6.40	34.43							
622	5.71	34.47							

N. B. SCOFIELD; April 1, 1954; 1735 GCT; 22°09'N, 119°57'W; sounding, 2000 fm; wind, 040°, force 4; weather, cloudy; sea, rough; wire angle, 10°. 135.140 (13)

0	18.47	33.80	5.49	0	18.47	33.80	5.49	24.26	367	0.00
10	18.46	33.84	5.54	10	18.46	33.84	5.54	24.29	364	0.04
56	18.44	34.07	5.55	20	18.47	33.90	5.54	24.33	360	0.07
77	18.56	34.14	5.55	30	18.46	33.93	5.55	24.36	358	0.11
88	18.00	34.17	5.59	50	18.44	34.04	5.55	24.45	349	0.18
93	17.15	33.95	5.68	75	18.56	34.15	5.55	24.50	344	0.27
97	16.43	33.82	5.67	100	15.86	33.79	5.65	24.87	309	0.35
107	15.11	33.73	5.57	150	11.87	33.61	4.47	25.56	243	0.49
139	12.47	33.56	4.90	200	10.52	34.22	2.33	26.27	176	0.60
188	10.70	34.16	2.67	250	9.98	34.34	1.45	26.46	158	0.68
252	9.92	34.34	1.40	300	9.27	34.37	0.82	26.60	145	0.76
331	8.76	-	0.65	400	7.82	34.40	0.52	26.85	121	0.90
415	7.65	34.40	0.48	500	6.81	34.42	0.27	27.01	106	1.02
518	6.66	34.42	0.26	600	6.08	34.43	0.24	27.11	96	1.13
647	5.80	34.43	0.24	700	5.46	34.44	0.28	27.20	88	1.23
817	4.83	34.51	0.41	800	4.91	34.50	0.38	27.31	77	1.32
1001	4.11	34.54	0.61	1000	4.10	34.54	0.62	27.43	66	1.48

HORIZON; March 5, 1954; 0901 GCT; 25°34.5'N, 112°18.5'W; sounding, 43 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 11°. 137.23

0	18.51	34.43	0	18.51	34.43		24.73	322	0.00
5	18.52	-	10	18.50	34.43		24.73	322	0.03
10	18.50	-	20	17.47	34.25		24.85	311	0.06
15	18.45	34.42	30	16.02	34.28		25.19	279	0.09
20	17.47	34.25	50	14.92	34.23		25.42	257	0.15
25	17.06	34.29							
35	15.30	34.27							
46	14.96	-							
61	14.89	34.18u							

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

137.40

HORIZON; March 5, 1954; 0030 GCT; 25°01.5'N, 113°26.5'W; sounding, 1750 fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 21°.

0	19.7			0	19.7					
10	19.74			10	19.74					
30	19.56			20	19.63					
44	17.89			30	19.56					
54	15.98			50	16.67					
63	14.74			75	13.73					
73	13.96			100	11.60					
82	12.77			150	11.14					
96	11.76			200	10.60					
106	11.42			250	10.01					
129	11.14			300	9.50					
157	11.13			400	8.54					
210	10.49			500	7.33					
272	9.40			600	6.38					
383	8.72									
510	7.22									
646	6.06									

145.160
(12)

N. B. SCOFIELD; March 31, 1954; 1738 GCT; 19°53'N, 120°02'W; sounding, 1000 fm; wind, 020°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.

0	19.28	34.27	5.25	0	19.28	34.27	5.25	24.41	353	0.00
10	19.27	34.19	5.09	10	19.27	34.19	5.09	24.35	359	0.04
45	19.09	34.23	5.11	20	19.23	34.20	5.10	24.37	357	0.07
55	18.08	33.93	5.31	30	19.20	34.21	5.10	24.39	355	0.11
60	18.16	33.92	5.27	50	18.78	34.08	5.17	24.39	355	0.18
90	17.46	33.98	5.29	75	17.99	33.95	5.28	24.49	345	0.27
105	16.22	33.87	5.29	100	16.77	33.94	5.29	24.78	318	0.35
115	14.78	33.60	5.19	150	12.52	33.82	3.42	25.59	240	0.49
135	12.94	33.60	4.65	200	11.71	34.52	0.62	26.29	174	0.60
178	11.98	34.30	1.25	250	11.32	34.70	0.15	26.50	154	0.68
236	11.42	34.69	0.20	300	10.68	34.72	0.09	26.63	142	0.76
324	10.24	34.72	0.08	400	9.20	34.58	0.14	26.78	128	0.90
412	9.04	34.57	0.13	500	7.79	34.54	0.11	26.96	110	1.03
509	7.70	34.54	0.10	600	6.68	34.50	0.13	27.09	98	1.14
636	6.35	34.50	0.14	700	5.88	34.50	0.16	27.19	89	1.24
804	5.28	34.52	0.22	800	5.28	34.52	0.23	27.28	80	1.34
985	4.41	34.50	0.39	1000	(4.37)	(34.50)	(0.42)	(27.37)	(72)	(1.51)

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

N. B. SCOFIELD; March 27, 1954; 1901, 1730 GCT; 18°25'N, 114°50'W; sounding, 1000 fm; wind, 360°, force 4; weather, cloudy; sea, slight; wire angle, 02°, 08°.

0	23.62	34.58	-	0	23.62	34.58	4.33	23.46	444	0.00
10	23.59	34.55	-	10	23.59	34.55	4.55	23.44	445	0.04
21	23.57	34.63	-	20	23.57	34.63	4.57	23.51	439	0.09
31	23.56	34.52	-	30	23.56	34.52	4.58	23.43	446	0.13
42	23.54	34.58	-	50	23.30	34.59	4.60	23.56	434	0.22
52	23.18	34.59	-	75	19.60	34.24	4.40	24.31	363	0.32
62	21.96	34.63	-	100	15.72	34.25	2.58	25.25	273	0.40
73	20.18	-	-	150	13.10	34.77	0.17	26.21	182	0.52
83	17.02	34.22	-	200	12.24	34.85	0.15	26.45	159	0.60
94	15.99	34.48u	-	250	11.50	34.83	0.11	26.57	148	0.68
104	15.61	34.27	-	300	10.79	34.80	0.09	26.68	137	0.76
				400	9.50	34.71	0.10	26.83	123	0.90
0a)	23.60	-	4.33	500	8.06	34.68	0.07	27.03	104	1.02
10	23.58	-	4.55	600	6.96	34.68	0.10	27.19	89	1.12
57	22.40	34.62	4.60	700	6.13	34.66	0.14	27.29	79	1.22
67	21.40	34.34	4.63	800	5.55	34.64	0.11	27.35	74	1.30
77	19.64	34.23	4.07	1000	4.54	34.60	0.29	27.43	66	1.46
87	17.03	34.33	2.94							
108	15.76	34.29	2.31							
129	13.64	34.65	0.40							
165	12.80	34.81	0.14							
216	12.01	34.86	0.15							
268	11.25	34.81	0.09							
338	10.26	34.78	0.09							
424	9.14	34.69	0.09							
528	7.72	34.68	0.04							
658	6.48	34.67	0.16							
830	5.40	34.63	0.11							
1014	4.49	34.60	0.31							

a) Overlapping casts; reconciliation of property curves when necessary.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
77.50-C	III-9	1843	35°03.5'	120°52.5'	94	220°	2	drizzle	rough	13.35	33.38
80.51-C	9	1435	34°27.5'	120°32.5'	40	030°	1	drizzle	smooth	12.57	33.39
80.60-C	9	0945	34°10.0'	121°09.0'	1250	190°	3	fog	slight	13.25	33.30
80.80-C	9	0104	33°29.0'	122°32.0'	2750	200°	3	overcast	moderate	13.64	33.17
83.40-C	7	1535	34°14.0'	119°22.0'	17	090°	3	fog	slight	13.73	33.32
83.48-C	8	0146	33°58.5'	119°55.5'	80	340°	3	cloudy	slight	13.11	33.39
83.55-C	8	0558	33°44.0'	120°24.5'	530	320°	4	clear	slight	13.66	33.24
85.40-C	7	1225	33°57.0'	119°10.5'	400	020°	2	clear	smooth	13.85	33.30
85.50-C	7	0730	33°37.0'	119°52.5'	200	300°	5	clear	rough	13.80	33.25
85.60-C	7	0012	33°18.5'	120°39.0'	1150	320°	4	overcast	rough	13.97	33.07
87.35-C	6	0748	33°49.5'	118°38.5'	400	240°	1	missing	slight	14.52	33.28
87.45-C	6	1326	33°30.0'	119°19.0'	970	320°	2	missing	slight	14.10	33.32
87.55-C	6	1840	33°10.0'	120°00.5'	400	320°	3	cloudy	rough	13.63	33.21
90.30-C	10	1510	33°24.5'	117°55.0'	340	300°	3	overcast	moderate	14.81	33.34
90.45-C	10	2230	32°56.5'	118°54.5'	950	280°	5	partly cloudy	very rough	14.84	33.39
90.60-C	11	0750	32°25.0'	119°57.5'	500	320°	6	partly cloudy	high	14.00	33.25
93.27-C	12	1758	32°56.0'	117°19.0'	55	220°	1	partly cloudy	rough	13.30	33.34
93.40-C	12	0935	32°26.5'	118°11.0'	410	300°	6	missing	very high	14.48	33.35

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
97.30-H	III-19	0240	32°15.5'	117°09.0'	30	300°	3	cloudy	moderate	14.03	33.40
97.32-H	19	0135	32°11.5'	117°17.0'	800	310°	3	cloudy	moderate	13.94	33.40
97.50-H	18	1656	31°37.0'	118°30.0'	1350	310°	3	cloudy	moderate	14.38	33.36
97.70-H	18	0750	30°55.0'	119°55.5'	1950	300°	3	partly cloudy	rough	14.33	33.40
100.30-H	16	1504	31°40.5'	116°46.5'	230	310°	1	partly cloudy	slight	13.87	33.45
100.35-H	16	1705	31°32.0'	117°04.5'	700	200°	2	cloudy	slight	14.91	33.45
100.40-H	16	1928	31°19.5'	117°29.0'	1050	200°	4	cloudy	slight	15.08	33.44
100.45-H	16	2126	31°12.0'	117°46.0'	1050	220°	4	cloudy	moderate	15.04	33.41
100.55-H	17	0305	30°53.0'	118°26.0'	1100	210°	6	partly cloudy	moderate	14.68	33.55
100.60-H	17	0555	30°41.0'	118°48.0'	1650	210°	6	cloudy	moderate	14.55	33.49
100.80-H	17	1630	30°01.0'	120°08.0'	2250	330°	5	cloudy	very rough	15.24	33.35
103.35-H	16	0720	30°59.5'	116°40.5'	1050	310°	3	clear	slight	15.33	33.39
103.45-H	16	0153	30°39.0'	117°29.5'	1200	290°	4	clear	slight	15.27	33.33
103.50-H	15	2334	30°26.0'	117°48.0'	1550	290°	3	partly cloudy	slight	15.53	33.30
103.55-H	15	2114	30°16.0'	118°08.5'	1300	340°	3	clear	slight	15.48	33.34
107.32-H	14	2300	30°25.5'	116°10.5'	172	150°	3	cloudy	rough	14.52	33.32
107.40-H	15	0432	30°10.0'	116°43.5'	1575	340°	4	cloudy	slight	15.72	33.40
107.45-H	15	0700	30°00.0'	117°04.0'	1000	290°	2	partly cloudy	slight	15.46	33.37

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
107.55-H	III-15	1230	29°41.0'	117°41.0'	1800	330°	5	partly cloudy	moderate	14.98	33.37
107.60-H	15	1400	29°29.0'	118°05.5'	1800	300°	3	partly cloudy	moderate	15.21	33.39
110.35-H	14	1653	29°43.0'	115°59.5'	1000	090°	3	partly cloudy	slight	12.14	33.35
110.45-H	14	0915	29°20.0'	116°40.0'	1550	330°	4	partly cloudy	very rough	15.50	33.30
110.50-H	14	0700	29°10.5'	117°01.0'	2000	330°	4	partly cloudy	rough	15.61	33.39
110.55-H	14	0430	29°00.0'	117°19.0'	1950	330°	4	partly cloudy	rough	15.82	33.39
110.70-H	13	2000	28°25.5'	118°18.0'	1950	360°	1	partly cloudy	rough	15.16	33.26
113.30-H	12	1018	29°22.5'	115°17.5'	39	330°	6	missing	very rough	12.10	33.63
113.32^5-H	12	1139	29°17.0'	115°28.5'	63	310°	6	missing	very rough	12.96	33.55
113.37^5-H	12	1629	29°05.5'	115°48.0'	1950	310°	5	partly cloudy	very rough	15.29	33.39
113.40-H	12	1800	29°01.0'	115°57.5'	1500	340°	5	cloudy	very rough	15.68	33.39
113.42^5-H	12	1910	28°56.0'	116°07.5'	600	340°	5	cloudy	very rough	15.74	33.35
113.45-H	12	2030	28°51.0'	116°17.5'	1300	310°	4	cloudy	very rough	15.83	33.39
113.47^5-H	12	2215	28°47.5'	116°28.0'	2250	310°	4	cloudy	very rough	15.92	33.35
113.55-H	13	0315	28°35.5'	116°58.5'	1900	310°	5	partly cloudy	very rough	15.44	33.29
113.60-H	13	0539	28°25.0'	117°18.0'	2000	310°	3	partly cloudy	very rough	15.38	33.31
117.32^5-H	11	2235	28°42.5'	115°05.5'	80	310°	7	cloudy	very rough	13.38	33.31
117.35-H	11	2100	28°38.0'	115°16.0'	125	310°	6	partly cloudy	very rough	14.14	33.30

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
117.37⅝-H	III-11	1920	28°33.0'	115°36.0'	295	310°	6	partly cloudy	high	14.06	33.33
117.42⅝-H	11	1539	28°23.0'	115°47.5'	700	310°	6	cloudy	very rough	15.28	33.40
117.45-H	11	1354	28°22.5'	115°57.5'	1730	310°	6	cloudy	very rough	15.56	33.40
117.47⅝-H	11	1200	28°16.0'	116°07.5'	2580	310°	6	overcast	rough	15.53	33.37
117.50-H	11	1030	28°11.0'	116°16.5'	2250	310°	6	overcast	rough	15.60	33.35
117.55-H	11	0545	27°59.0'	116°35.5'	1900	310°	6	overcast	rough	15.87	33.35
120.27⅝-H	9	0352	28°18.0'	114°24.0'	53	340°	4	missing	moderate	15.41	33.54
120.30-H	9	0500	28°12.0'	114°34.5'	55	340°	4	fog	moderate	15.66	33.56
120.32⅝-H	9	0607	28°07.0'	114°43.5'	50	310°	3	fog	moderate	15.82	33.63
120.37⅝-H	9	0930	27°59.5'	115°05.0'	38	310°	2	clear	slight	15.74	33.51
120.40-H	9	1040	27°56.0'	115°15.0'	29	270°	6	clear	rough	16.18	33.63
120.42⅝-H	9	1150	27°50.5'	115°29.5'	105	310°	4	fog	moderate	15.42	33.53
120.45-H	9	1340	27°40.5'	115°38.5'	1500	320°	4	partly cloudy	moderate	15.46	33.53
120.47⅝-H	9	1530	27°35.0'	115°48.0'	2500	320°	4	partly cloudy	moderate	15.16	33.40
120.55-H	9	1958	27°22.5'	116°10.5'	2100	310°	2	partly cloudy	moderate	16.41	33.62
120.60-H	9	2229	27°13.0'	116°31.5'	2100	340°	4	cloudy	moderate	16.16	33.55
120.80-H	10	0750	26°32.5'	117°48.5'	2200	300°	6	partly cloudy	rough	17.89	34.04
123.37-H	8	1630	27°24.0'	114°39.5'	40	300°	3	clear	moderate	14.37	33.85

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
123.42^5-H	III-8	1140	27°09.0'	115°12.5'	2350	340°	4	partly cloudy	moderate	16.16	33.57
123.45-H	8	0955	27°05.0'	115°20.5'	2100	340°	4	partly cloudy	moderate	16.58	33.81
123.47^5-H	8	0822	27°00.5'	115°28.5'	2100	340°	4	missing	moderate	16.60	33.84
123.50-H	8	0718	26°56.5'	115°34.5'	1850	360°	4	missing	moderate	16.54	33.74
123.55-H	8	0440	26°48.5'	115°51.5'	2150	360°	5	missing	moderate	16.73	33.88
127.37-H	7	0746	26°48.5'	114°17.5'	1515	020°	5	missing	moderate	17.52	34.10
127.40-H	7	0926	26°42.0'	114°29.5'	1900	340°	6	missing	rough	18.32	34.22
127.42^5-H	7	1049	26°35.0'	114°36.0'	2250	300°	5	missing	rough	18.33	34.25
127.45-H	7	1215	26°28.5'	114°51.0'	2100	280°	5	missing	very rough	18.48	33.78
127.47^5-H	7	1330	26°29.0'	115°02.5'	1900	270°	5	cloudy	very rough	18.33	34.22
127.55-H	7	1815	26°12.5'	115°27.0'	2005	330°	5	cloudy	rough	18.89	34.27
127.60-H	7	2045	26°04.0'	115°45.0'	2175	300°	6	partly cloudy	rough	18.30	34.22
130.35-H	6	2200	26°19.0'	113°48.5'	250	280°	5	partly cloudy	rough	17.81	34.07
130.45-H	6	1629	25°59.5'	114°27.0'	1950	310°	4	partly cloudy	rough	18.32	34.20
130.50-H	6	1337	25°45.5'	114°50.5'	2000	310°	4	overcast	rough	18.95	34.23
130.55-H	6	1120	25°35.0'	115°09.0'	2100	320°	4	missing	rough	18.88	34.29
133.25-H	5	1356	26°03.0'	112°55.0'	50	320°	5	partly cloudy	rough	17.22	34.27
133.35-H	5	1840	25°44.0'	113°26.5'	470	310°	5	partly cloudy	high	19.20	34.27

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
133.40-H	III-5	2030	25°35.0'	113°45.5'	615	330°	4	partly cloudy	high	19.18	34.27
133.45-H	5	2315	25°24.5'	114°04.5'	1900	330°	5	partly cloudy	high	19.30	34.31
137.30-H	5	0607	25°20.0'	112°45.5'	200	300°	4	clear	moderate	18.00	34.11
137.35-H	5	0340	25°12.0'	113°05.5'	625	320°	5	clear	rough	19.09	34.28
137.45-H	4	2203	24°50.0'	113°45.0'	1810	320°	4	partly cloudy	moderate	19.41	34.33
137.50-H	4	2000	24°40.0'	114°02.0'	1950	320°	4	partly cloudy	moderate	19.14	34.33

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3^{-5}}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

60.60

HORIZON; April 11, 1954; 2036 GCT; 37°42'N, 123°42'W; sounding, missing; wind, 320°, force 6; weather, overcast; sea, rough; wire angle, 28°.

0	11.6	32.91	0	11.6	32.91	25.06	291	0.00
10	11.72	32.95	10	11.72	32.95	25.07	290	0.03
28	11.74	32.94	20	11.77	32.94	25.05	292	0.06
42	11.65	32.98	30	11.74	32.94	25.06	291	0.09
56	10.69	33.04	50	11.09	33.01	25.23	275	0.14
64	10.85	33.19	75	10.56	33.38	25.61	239	0.21
73	10.63	33.35	100	8.98	33.38	25.88	213	0.26
86	9.86	33.47	150	8.45	33.87	26.34	169	0.36
95	9.18	33.37	200	7.93	34.05	26.56	148	0.44
108	8.76	-	250	7.50	34.11	26.67	138	0.52
134	8.70	33.81	300	7.00	34.12	26.75	130	0.59
159	8.27	33.91	400	6.04	34.12	26.87	119	0.72
212	7.84	34.07	500	5.54	34.29	27.07	100	0.83
273	7.28	34.12	600	5.01	34.35	27.18	90	0.93
379	6.20	34.11						
506	5.51	34.29						
636	4.79	34.37						

63.55

HORIZON; April 13, 1954; 2129 GCT; 37°14'N, 122°49.5'W; sounding, 150 fm; wind, 320°, force 5; weather, fog; sea, moderate; wire angle, 12°.

0	12.40	31.78	0	12.40	31.78	24.04	388	0.00
10	12.27	32.10	10	12.27	32.10	24.31	362	0.04
16	12.26	32.21	20	12.19	32.28	24.47	347	0.07
21	12.14	32.30	30	11.96	32.45	24.64	331	0.11
24	12.02	32.42	50	10.16	33.15	25.50	249	0.16
31	11.93	32.46	75	9.41	33.66	26.02	200	0.22
36	11.25	32.90	100	8.49	33.86	26.33	170	0.21
46	10.39	33.15	150	8.34	33.97	26.44	160	0.35
56	9.93	33.16	200	7.53	34.06	26.63	142	0.43
66	9.90	33.39						
76	9.36	33.68						
96	8.47	33.84						
111	8.54	33.90						
142	8.48	33.95						
172	7.9	34.01						
207	7.48	34.06						

67.50

HORIZON; April 14, 1954; 0434 GCT; 36°49'N, 122°04.5'W; sounding, 60 fm; wind, 320°, force 6; weather, clear; sea, rough; wire angle, 20°.

0	11.26	33.31	0	11.26	33.31	25.43	256	0.00
10	11.17	33.35	10	11.17	33.35	25.48	251	0.02
15	11.00	33.33	20	10.06	33.55	25.83	218	0.05
20	10.06	33.55	30	9.32	33.62	26.01	201	0.07
25	9.63	33.57	50	8.71	33.85	26.28	175	0.11
30	9.32	33.62	75	8.36	33.95	26.42	162	0.15
34	9.18	33.73						
44	8.82	33.82						
54	8.66	33.86						
63	8.61	33.89						
78	8.28	33.96						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

HORIZON; April 15, 1954; 0234 GCT; 34°55'N, 121°13.5'W; sounding, 320 fm; wind, 320°, force 6; weather, clear; sea, high; wire angle, 54°. 77.55

0	-	33.17	0	(12.24)	33.17	(25.14)	(283)	(0.00)
7	12.24	33.15	10	12.23	33.15	25.13	284	0.03
20	12.13	33.14	20	12.13	33.14	25.14	283	0.06
25	11.95	33.19	30	11.87	33.22	25.25	273	0.08
32	11.84	33.22	50	11.54	33.30	25.38	260	0.14
38	11.74	33.22	75	10.67	33.45	25.65	235	0.20
44	11.66	33.26	100	9.10	33.75	26.14	188	0.25
50	11.54	33.30	150	8.23	33.99	26.47	157	0.34
56	11.42	33.30	200	8.05	34.01	26.51	153	0.42
62	11.16	33.35	250	7.60	34.07	26.62	143	0.50
72	10.79	33.43	300	(7.11)	(34.16)	(26.76)	(129)	(0.57)
84	10.30	33.52						
93	9.71	33.60						
110	8.47	33.90						
150	8.23	33.99						
211	7.98	34.02						
295	7.14	34.16						

HORIZON; April 15, 1954; 1128 GCT; 34°19'N, 120°48'W; sounding, 430 fm; wind, 040°, force 2; weather, partly cloudy; sea, rough; wire angle, 15°. 80.55

0	-	33.66	0	(10.76)	33.66	(25.80)	(221)	(0.00)
10	10.75	33.66	10	10.75	33.66	25.80	221	0.02
30	10.75	33.66	20	10.75	33.66	25.80	221	0.04
45	10.71	33.68	30	10.75	33.66	25.80	221	0.07
54	10.36	33.68	50	10.54	33.68	25.85	216	0.11
64	10.30	33.71	75	9.97	33.76	26.01	201	0.16
73	10.08	33.75	100	8.73	33.93	26.34	169	0.21
83	9.64	33.78	150	8.38	34.02	26.47	157	0.29
97	8.77	33.87	200	8.12	34.14	26.60	145	0.37
106	8.70	34.00	250	7.63	34.21	26.73	132	0.44
129	8.49	34.00	300	7.24	34.21	26.78	128	0.51
157	8.36	34.03	400	(6.63)	34.20	(26.86)	(120)	(0.64)
208	8.06	34.16	500	(6.00)	34.23	(26.97)	(110)	(0.76)
269	7.48	34.22	600	(5.39)	34.35	(27.14)	(93)	(0.86)
378	6.78	34.20						
505	-	34.23						
637	5.18	34.40						

HORIZON; April 15, 1954; 1829 GCT; 33°48.5'N, 121°50'W; sounding, 2150 fm; wind, 320°, force 2; weather, overcast; sea, high; wire angle, 17°. 80.70

0	-	33.28	0	(13.35)	33.28	(25.01)	(296)	(0.00)
10	13.35	33.51r	10	13.35	33.27	25.00	297	0.03
25	13.33	33.24	20	13.34	33.24	24.98	299	0.06
55	13.30	33.28	30	13.33	33.25	24.99	298	0.09
64	13.26	33.26	50	13.30	33.28	25.02	295	0.15
74	11.96	33.30	75	11.80	33.31	25.36	262	0.22
89	10.26	33.39	100	9.71	33.48	25.84	217	0.28
109	9.41	33.56	150	8.73	33.87	26.30	173	0.38
134	8.86	33.77	200	8.16	34.04	26.52	152	0.46
164	8.62	33.93	250	7.64	34.10	26.64	141	0.54
217	7.97	34.07	300	7.25	34.16	26.74	131	0.61
293	7.28	34.14	400	6.48	34.24	26.91	115	0.73
397	6.50	34.41u	500	5.91	34.32	27.05	102	0.85
535	5.74	34.31	600	5.40	34.31	27.10	97	0.96
723	4.88	34.34	700	4.99	34.33	27.17	91	1.06
956	4.06	34.48	800	4.58	34.38	27.25	83	1.15
1270	3.31	34.52	1000	3.93	34.49	27.41	68	1.32

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

80.90

HORIZON; April 16, 1954; 0245 GCT; 33°10'N, 123°10.5'W; sounding, 2300 fm; wind, 300°, force 3; weather, partly cloudy; sea, high; wire angle, 17°.

0	-	33.19	0	(14.04)	33.19	(24.80)	(316)	(0.00)
10	14.03	33.21	10	14.03	33.21	24.82	314	0.03
25	13.90	33.17	20	13.93	33.18	24.82	314	0.06
54	13.09	33.22	30	13.86	33.17	24.82	314	0.09
64	12.11	33.28	50	13.72	33.21	24.88	308	0.16
73	11.42	33.26	75	11.37	33.26	25.38	260	0.23
88	11.25	33.30	100	9.88	33.41	25.75	225	0.29
107	9.33	33.51	150	8.55	33.88	26.33	170	0.39
131	8.82	33.79	200	7.99	34.04	26.54	150	0.47
160	8.41	33.91	250	7.45	34.07	26.64	141	0.54
211	7.87	34.05	300	6.91	34.09	26.74	131	0.62
288	7.05	34.08	400	5.93	34.14	26.90	116	0.74
395	5.98	34.14	500	5.42	34.23	27.04	103	0.86
534	5.28	34.25	600	5.04	34.29	27.13	94	0.96
722	4.64	34.34	700	4.71	34.33	27.20	88	1.06
956	3.92	34.47	800	4.38	34.38	27.28	80	1.15
1264	3.19	-	1000	3.80	(34.49)	(27.42)	(67)	(1.32)

82.47

HORIZON; April 17, 1954; 0605 GCT; 34°15'N, 119°58'W; sounding, 315 fm; wind, 320°, force 4; weather, fog; sea, rough; wire angle, 23°.

0	-	33.64	0	(11.19)	33.64	(25.70)	(230)	(0.00)
10	11.08	33.68	10	11.08	33.68	25.75	225	0.02
29	10.21	33.75	20	10.53	33.74	25.90	211	0.04
39	9.98	33.74	30	10.19	33.75	25.96	205	0.06
48	9.44	33.80	50	9.41	33.82	26.15	187	0.10
58	9.39	33.87	75	9.22	33.84	26.20	183	0.15
67	9.30	33.85	100	9.23	33.89	26.23	180	0.20
76	9.22	33.84	150	8.71	34.02	26.42	162	0.28
84	9.33	33.88	200	8.54	34.17	26.56	148	0.36
94	9.30	33.87	250	7.96	34.20	26.71	134	0.44
111	9.04	34.00	300	7.45	34.22	26.76	129	0.50
133	8.62	34.02	400	6.78	34.27	26.90	116	0.63
150	8.71	34.02	500	(6.39)	(34.35)	(27.01)	(106)	(0.75)
184	8.68	34.15						
255	7.90	34.20						
354	7.04	34.24						
472	6.48	34.33						

83.43

HORIZON; April 17, 1954; 0846 GCT; 34°08'N, 119°34'W; sounding, 138 fm; wind, 270°, force 4; weather, fog; sea, rough; wire angle, 10°.

0	13.68	33.49	0	13.68	33.49	25.11	286	0.00
10	13.59	33.50	10	13.59	33.50	25.13	284	0.03
20	11.97	33.51	20	11.97	33.51	25.46	253	0.06
30	11.34	33.48	30	11.34	33.48	25.55	244	0.08
40	10.89	33.47	50	10.29	33.50	25.75	225	0.13
51	10.22	33.50	75	9.72	33.67	25.98	204	0.18
61	9.88	33.80u	100	9.44	33.91	26.21	182	0.23
71	9.80	33.66						
81	9.60	33.69						
92	9.56	33.78						
102	9.40	33.93						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; April 17, 1954; 0148 GCT; 33°52.5'N, 120°08.5'W; sounding, 75 fm; wind, 320°, force 4; weather, fog; sea, rough; wire angle, 11°. 83.51

0	12.52	33.42	0	12.52	33.42	25.28	270	0.00
10	12.40	33.42	10	12.40	33.42	25.31	267	0.03
15	11.98	33.44	20	11.71	33.53	25.52	247	0.05
20	11.71	33.53	30	10.70	33.55	25.72	228	0.08
25	11.47	33.48	50	9.27	33.69	26.07	195	0.12
30	10.70	33.55	75	8.84	33.92	26.32	171	0.16
35	10.08	33.77	100		33.98			
45	9.48	33.68						
55	9.12	33.71						
66	8.98	33.82						
81	8.73	33.95						
101	-	33.98						
127	-	34.04						

HORIZON; April 16, 1954; 2100 GCT; 33°42.5'N, 120°51.5'W; sounding, 700 fm; wind, 090°, force 1; weather, overcast; sea, very rough; wire angle, 14°. 83.60

0	-	33.51	0	(12.04)	33.51	(25.45)	(254)	(0.00)
10	12.04	33.48	10	12.04	33.48	25.42	257	0.03
30	11.73	33.51	20	11.93	33.49	25.45	254	0.05
40	11.21	33.57	30	11.73	33.51	25.50	249	0.08
50	10.14	33.64	50	10.14	33.64	25.89	212	0.12
60	9.91	33.66	75	9.48	33.74	26.08	194	0.17
70	9.64	33.70	100	8.91	33.83	26.24	179	0.22
80	9.30	33.76	150	8.35	33.99	26.46	158	0.31
89	9.10	33.77	200	8.27	34.09	26.54	150	0.38
99	8.92	33.83	250	7.42	34.13	26.70	135	0.46
123	8.83	33.91	300	6.97	34.21	26.82	124	0.52
151	8.35	33.99	400	6.43	34.27	26.94	112	0.65
201	8.27	34.09	500	5.94	34.25	26.99	108	0.76
259	7.33	34.14	600	5.25	34.34	27.14	93	0.87
361	6.60	34.28						
480	6.06	34.25						
604	5.22	34.34						

HORIZON; April 16, 1954; 1134, 1235 GCT; 32°58'N, 122°08'W; sounding, 2200 fm; wind, 140°, force 4; weather, overcast; sea, very rough; wire angle, 00°, 00°. 83.80

0	-	33.18	0	(14.19)	33.18	(24.76)	(320)	(0.00)
10	14.15	33.18	10	14.15	33.18	24.77	319	0.03
31	13.97	33.12	20	14.00	33.14	24.77	319	0.06
47	14.05	-	30	13.95	33.12	24.77	319	0.10
			50	14.07	33.13	24.75	320	0.16
57	12.68	33.13	75	11.40	33.18	25.31	267	0.23
67	11.83	33.13	100	9.78	33.29	25.68	232	0.30
77	11.30	33.19	150	8.74	33.74	26.19	184	0.40
87	10.30	33.22	200	8.09	34.00	26.50	154	0.49
102	9.72	33.30	250	7.52	34.15	26.70	135	0.56
112	9.48	33.41	300	7.15	34.18	26.78	128	0.63
136	8.94	33.58	400	6.24	34.16	26.88	118	0.76
176	8.44	33.92	500	5.59	34.26	27.04	103	0.87
220	7.79	34.05	600	5.16	34.34	27.16	92	0.98
285	7.28	34.18						
410	6.16	34.16						
530	5.43	34.29						
668	4.97	34.37						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m

85.39

HORIZON; April 8, 1954; 1335 GCT; 34°00'N, 119°04.5'W; sounding, 370 fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 15°.

0	13.5	33.44	0	13.5	33.44	25.11	286	0.00
10	13.06	33.46	10	13.06	33.46	25.21	277	0.03
30	11.18	33.55	20	11.79	33.52	25.50	249	0.06
40	10.53	33.60	30	11.18	33.55	25.64	236	0.08
49	10.43	33.64	50	10.42	33.64	25.84	217	0.12
59	10.20	33.65	75	9.67	33.74	26.04	198	0.18
68	9.82	33.68	100	9.50	33.98	26.43	161	0.22
78	9.62	33.77	150	8.82	34.13	26.49	155	0.30
88	9.58	33.89	200	8.59	34.22	26.59	146	0.38
97	9.53	-	250	8.06	34.23	26.68	137	0.45
120	9.16	34.07	300	7.50	34.30	26.82	124	0.52
148	8.82	34.13	400	6.70	34.34	26.96	110	0.64
195	8.61	34.22	500	6.11	34.33	27.03	104	0.76
252	8.02	34.23	600	(5.39)	(34.35)	(27.14)	(93)	(0.86)
354	7.00	34.34						
470	6.31	34.33						
596	5.41	34.35						

85.45

HORIZON: April 8, 1954; 0738 GCT; 33°47'N, 119°31'W; sounding, 1040 fm: wind, 320°, force 5; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	12.9	33.47	0	12.9	33.47	25.25	273	0.00
10	12.73	33.50	10	12.73	33.50	25.31	267	0.03
30	10.38	33.68	20	11.91	33.56	25.51	248	0.05
44	9.87	33.74	30	10.38	33.68	25.88	213	0.08
58	9.54	33.81	50	9.70	33.77	26.06	196	0.12
68	9.66	33.86	75	9.59	33.88	26.17	185	0.16
77	9.56	33.89	100	9.42	34.01	26.30	173	0.21
91	9.50	34.00	150	9.03	34.10	26.43	161	0.30
100	9.42	34.01						
114	9.22	34.11						
141	9.10	34.09						
168	8.82	34.19						

85.55

HORIZON; April 8, 1954: 0106 GCT: 33°27'N, 120°06.5'W; sounding, 700 fm; wind, 330°, force 7; weather, partly cloudy; sea, rough; wire angle, 42°.

0	14.0	33.22	0	14.0	33.22	24.83	313	0.00
8	13.88	33.23	10	13.84	33.23	24.87	309	0.03
24	13.84	33.21	20	13.85	33.21	24.86	310	0.06
35	13.8u	33.24	30	13.68	33.22	24.90	306	0.09
45	12.98	33.29	50	12.80	33.29	25.13	284	0.15
52	12.73	33.29	75	11.29	33.41	25.51	248	0.22
58	12.59	33.29	100	9.57	33.52	25.89	212	0.28
66	12.04	33.26	150	8.38	33.98	26.44	160	0.37
72	11.53	33.39	200	7.83	34.09	26.61	144	0.45
80	10.84	33.43	250	7.41	34.20	26.75	130	0.52
96	9.78	33.48	300	7.20	34.22	26.80	126	0.58
112	9.08	33.64	400	6.60	34.28	26.93	113	0.71
142	8.48	33.96						
179	8.10	34.02						
245	7.42	34.20						
332	7.05	34.23						
446	6.24	34.32						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

87.40

HORIZON; April 17, 1954: 1741 GCT; 33°40'N, 118°58.5'W; sounding, 390 fm; wind, 270°, force 2; weather, fog: sea, moderate; wire angle, 06°.

0	-	33.40	0	(12.99)	(33.40)	(25.18)	(280)	(0.00)
10	12.91	33.42	10	12.91	33.42	25.21	277	0.03
31	12.06	33.51	20	12.48	33.49	25.35	263	0.06
41	11.63	33.49	30	12.10	33.51	25.43	256	0.08
52	10.48	33.57	50	10.70	33.56	25.73	227	0.13
62	9.82	33.54	75	9.59	33.77	26.08	194	0.18
72	9.66	33.69	100	9.07	33.93	26.29	174	0.23
82	9.47	33.86	150	8.72	34.12	26.49	155	0.31
92	9.31	33.89	200	8.39	34.22	26.62	143	0.39
102	9.05	33.94	250	7.91	34.30	26.76	129	0.46
127	8.88	34.00	300	7.47	34.32	26.84	122	0.52
157	8.68	34.14	400	6.72	34.34	26.96	110	0.64
206	8.36	34.23	500	6.09	34.43	27.11	96	0.75
266	7.76	34.31	600	5.49	34.45	27.20	88	0.85
371	6.91	34.33						
492	6.15	34.43						
619	5.40	34.45						

87.50

HORIZON; April 17, 1954: 2221 GCT; 33°21.5'N, 119°41'W; sounding, 45 fm; wind, 320°, force 5; weather, overcast; sea, moderate; wire angle, 12°.

0	13.94	33.31	0	13.94	33.31	24.92	304	0.00
10	13.94	33.31	10	13.94	33.31	24.92	304	0.03
20	13.91	33.31	20	13.91	33.31	24.92	304	0.06
30	13.88	33.31	30	13.88	33.31	24.93	303	0.09
40	13.85	33.31	50	12.66	33.22	25.10	287	0.15
50	12.66	33.22						
60	11.10	33.22						

87.60

HORIZON; April 18, 1954; 0325 GCT; 32°59'N, 120°21'W: sounding, missing; wind, 300°, force 5; weather, overcast; sea, rough; wire angle, 37°.

0	-	33.29	0	(13.44)	33.29	(25.00)	(297)	(0.00)
9	13.38	33.30	10	13.38	33.30	25.02	295	0.03
26	13.06	33.35	20	13.12	33.34	25.10	287	0.06
34	12.98	33.35	30	13.01	33.35	25.13	284	0.09
41	12.94	33.33	50	12.91	33.31	25.12	285	0.14
49	12.92	33.31	75	10.25	33.37	25.66	234	0.21
56	12.62	33.30	100	9.24	33.62	26.02	200	0.26
69	10.68	33.24	150	8.52	34.07	26.49	155	0.35
76	10.18	33.40	200	7.98	34.03	26.54	150	0.43
91	9.40	33.58	250	7.53	34.09	26.65	140	0.51
111	9.16	33.68	300	7.18	34.17	26.76	129	0.58
144	8.60	34.07	400	6.51	34.25	26.92	114	0.70
186	8.12	34.02	500	(5.78)	(34.28)	(27.03)	(104)	(0.82)
262	7.43	34.11						
359	6.80	34.23						
472	5.98	34.27						

87.80

HORIZON; April 18, 1954; 1222 GCT; 32°15'N, 121°42'W; sounding, 2000 fm; wind, 270°, force 4; weather, overcast; sea, rough; wire angle, 23°.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m
0	-	33.33	0	(14.48)	33.33	(24.82)	(314)	(0.00)
10	14.43	33.30	10	14.43	33.30	24.80	316	0.03
29	14.23	33.22	20	14.30	33.25	24.79	317	0.06
43	14.22	33.26	30	14.26	33.22	24.78	318	0.10
53	14.22	-	50	14.23	33.23	24.79	317	0.16
61	12.58	33.17	75	11.36	33.21	25.34	264	0.23
71	11.58	33.19	100	10.08	33.28	25.62	238	0.30
79	11.18	33.22	150	8.90	33.80	26.22	181	0.40
92	10.24	33.21	200	8.21	34.03	26.50	154	0.49
101	10.07	33.30	250	7.50	34.07	26.64	141	0.56
122	9.31	33.53	300	6.92	34.09	26.73	132	0.63
147	8.94	33.77	400	6.23				
193	8.34	34.02	500	5.79				
249	7.52	34.07	600	(5.33)				
349	6.54	34.11						
467	5.94	34.29u						
596	5.36	34.47u						

90.28

HORIZON; April 20, 1954; 0422 GCT; 33°28.5'N, 117°46.5'W; sounding, 252 fm; wind, 320°, force 2; weather, overcast; sea, calm; wire angle, 06°.

0	14.96	33.46	0	14.96	33.46	24.81	315	0.00
10	13.67	33.45	10	13.67	33.45	25.08	289	0.03
20	13.60	33.45	20	13.60	33.45	25.09	288	0.06
31	10.67	33.81	30	10.79	33.81	25.91	210	0.08
41	10.17	33.71	50	9.91	33.80	26.05	197	0.12
51	9.88	33.81	75	9.64	33.94	26.21	182	0.17
62	9.74	33.88	100	9.57	34.07	26.32	171	0.22
72	9.69	34.42						
82	9.57	33.97						
92	9.55	34.01						
102	9.56	34.09						

90.37

HORIZON; April 19, 1954; 2335 GCT; 33°11.5'N, 118°24'W; sounding, 650 fm; wind, 320°, force 1; weather, overcast; sea, moderate; wire angle, 05°.

0	-	33.42	0	(13.88)	33.42	(25.01)	(296)	(0.00)
10	13.83	33.42	10	13.83	33.42	25.02	295	0.03
31	13.53	33.44	20	13.69	33.43	25.06	291	0.06
41	12.45	33.43	30	13.55	33.44	25.10	287	0.09
51	11.89	33.46	50	11.91	33.46	25.43	256	0.14
61	11.14	33.55	75	10.54	33.59	25.78	222	0.20
71	10.72	33.57	100	9.78	33.87	26.13	189	0.25
81	10.30	33.67	150	9.27	34.15	26.43	161	0.34
90	10.11	33.76	200	8.60	34.15	26.54	150	0.42
100	9.78	33.87	250	8.01	34.24	26.70	135	0.50
125	9.57	33.99	300	7.51	34.30	26.82	124	0.56
155	9.20	34.15	400	(6.70)	34.35	(26.97)	(110)	(0.69)
205	8.54	34.15	500	(6.07)	34.37	(27.07)	(100)	(0.80)
265	7.86	34.26	600	(5.57)	34.41	(27.16)	(92)	(0.90)
369	6.94	34.34						
490	-	34.37						
618	5.50	34.42						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} T_3 cm/g	ΔD dyn. m

HORIZON; April 19, 1954; 1442 GCT; 32°31.5'N, 119°30.5'W; sounding, 450 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 17°. 90.55

0	-	33.28	0	(13.99)	33.28	(24.88)	(308)	(0.00)
10	13.98	33.28	10	13.98	33.28	24.88	308	0.03
30	13.78	33.27	20	13.87	33.27	24.90	306	0.06
40	12.63	33.26	30	13.78	33.27	24.92	304	0.09
50	12.10	33.23	50	12.10	33.23	25.22	276	0.15
60	11.90	33.34	75	11.15	33.40	25.52	247	0.22
70	11.36	33.39	100	10.31	33.48	25.73	227	0.28
80	10.97	33.40	150	8.76	33.89	26.31	172	0.38
100	10.31	33.48	200	8.26	34.01	26.48	156	0.46
123	9.28	33.93	250	7.61	34.16	26.69	136	0.54
151	8.75	33.89	300	7.17	34.21	26.79	127	0.60
199	8.28	34.01	400	6.52	34.28	26.94	112	0.73
265	7.46	34.18	500	5.87	34.38	27.10	97	0.84
365	6.73	34.25	600	5.43	34.36	27.14	93	0.94
490	5.92	34.38	700	5.05	34.38	27.20	88	1.04
643	5.27	34.36	800	4.70	34.45	27.30	78	1.13
800	4.70	34.45						

HORIZON; April 19, 1954; 0550 GCT; 32°03'N, 120°34'W; sounding, 2100 fm; wind, 300°, force 5; weather, overcast; sea, rough; wire angle, 22°. 90.70

0	14.72	33.46	0	14.72	33.46	24.87	309	0.00
10	14.65	33.45	10	14.65	33.45	24.87	309	0.03
29	14.72	33.40	20	14.72	33.41	24.83	313	0.06
53	14.54	33.40	30	14.72	33.40	24.82	314	0.09
68	11.84	33.44	50	14.71	33.40	24.82	314	0.16
91	10.39	33.52	75	11.22	33.46	25.56	243	0.23
115	9.80	33.75	100	10.10	33.58	25.85	216	0.28
148	9.42	33.96	150	9.40	33.96	26.26	177	0.38
172	8.86	34.02	200	8.53	34.09	26.50	154	0.47
228	8.31	34.15	250	8.12	34.21	26.66	139	0.54
309	7.66	34.34	300	7.71	34.34	26.82	124	0.61
418	6.65	34.22	400	6.80	34.22	26.85	121	0.74
566	5.58	34.33	500	6.00	34.28	27.01	106	0.86
765	4.70	34.42	600	5.38	34.34	27.13	94	0.97
1008	4.01	34.52	700	4.93	34.39	27.22	86	1.06
1335	3.24	34.55	800	4.59	34.44	27.30	78	1.15
			1000	4.03	34.52	27.42	67	1.32

HORIZON; April 18, 1954; 2052 GCT; 31°23.5'N, 122°00'W; sounding, 2000+ fm; wind, 280°, force 4; weather, overcast; sea, moderate; wire angle, 36°. 90.90

0	-	33.31	0	(14.69)	33.31	(24.76)	(320)	(0.00)
9	14.69	33.33	10	14.67	33.33	24.78	318	0.03
22	14.55	33.36	20	14.57	33.36	24.82	314	0.06
47	14.27	33.42	30	14.47	33.38	24.86	310	0.10
55	14.25	33.42	50	14.27	33.42	24.93	303	0.16
63	14.26	33.40	75	12.25	33.15	25.13	284	0.23
74	12.40	33.15	100	10.08	33.29	25.63	237	0.30
88	10.98	33.28	150	8.80	33.74	26.18	184	0.40
106	9.76	33.30	200	8.22	34.03	26.50	154	0.49
126	9.30	33.55	250	7.74	34.15	26.67	138	0.56
162	8.57	33.82	300	7.18	34.18	26.77	128	0.63
216	8.10	34.09	400	6.02	34.18	26.92	114	0.76
290	7.30	34.18	500	5.38	34.24	27.05	102	0.87
389	6.13	34.18	600	4.89	34.33	27.18	90	0.97
528	5.22	34.27	700	4.53	34.40	27.27	81	1.07
716	4.47	34.41	800	4.24	34.45	27.35	74	1.15
979	3.84	34.50	1000	(3.81)	(34.51)	(27.44)	(65)	(1.31)

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

93.30 E. W. SCRIPPS; April 10, 1954; 0630 GCT; 32°50'N, 117°31.5'W; sounding, 430 fm; wind, 250°, force 3; weather, partly cloudy; sea, slight; wire angle, 05°.

0	14.7	33.39	0	14.7	33.39	24.82	314	0.00
10	14.64	33.40	10	14.64	33.40	24.84	312	0.03
30	12.34	33.40	20	13.65	33.40	25.04	293	0.06
40	11.40	33.44	30	12.34	33.40	25.30	268	0.09
50	10.54	33.58	50	10.54	33.58	25.77	223	0.14
60	10.33	33.66	75	9.95	33.76	26.01	201	0.19
70	10.12	33.73	100	9.74	33.99	26.23	180	0.24
80	9.83	33.80	150	9.43	34.17	26.42	162	0.33
89	-	33.92	200	9.02	34.27	26.56	148	0.41
99	9.74	33.99	250	8.64	34.22	26.58	146	0.48
123	9.55	34.13	300	7.90	34.25	26.72	133	0.55
151	9.42	34.17	400	6.95	34.32	26.91	115	0.68
200	9.02	34.27	500	6.53	34.35	26.99	108	0.80
258	8.59	34.22	600	5.40	34.42	27.19	89	0.91
360	7.04	34.31						
477	6.72	34.34						
601	5.37	34.42						

93.50 E. W. SCRIPPS; April 10, 1954; 2122 GCT; 32°10'N, 118°53'W; sounding, 850 fm; wind, 270°, force 5; weather, partly cloudy; sea, very rough; wire angle, 27°.

0	14.6	33.37	0	14.6	33.37	24.82	314	0.00
10	14.54	33.38	10	14.54	33.38	24.84	312	0.03
29	14.54	33.37	20	14.54	33.37	24.84	312	0.06
39	14.50	33.39	30	14.53	33.37	24.84	312	0.09
48	13.92	33.36	50	13.72	33.35	24.99	298	0.16
58	12.72	33.34	75	11.09	33.36	25.50	249	0.22
68	11.64	33.35	100	10.31	33.54	25.78	222	0.28
77	10.98	33.37	150	9.32	33.90	26.23	180	0.38
86	10.57	33.44	200	8.25	34.07	26.53	151	0.47
96	10.40	33.51	250	7.96	34.22	26.69	136	0.54
119	9.73	33.70	300	7.42	34.28	26.81	125	0.61
147	9.39	33.89	400	6.68	34.36	26.98	109	0.73
194	8.31	34.05	500	6.04	34.42	27.11	96	0.84
250	7.96	34.22	600	(5.50)	(34.40)	(27.16)	(92)	(0.94)
356	6.97	34.32						
461	6.28	34.42						
582	5.60	34.40						

93.70 E. W. SCRIPPS; April 11, 1954; 1121 GCT; 31°25'N, 120°20'W; sounding, 2100 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	14.4	33.39	0	14.4	33.39	24.88	308	0.00
12	14.52	33.41	10	14.52	33.41	24.87	309	0.03
32	14.54	33.40	20	14.53	33.41	24.87	309	0.06
41	14.54	33.40	30	14.54	33.40	24.86	310	0.09
51	14.46	33.40	50	14.45	33.40	24.88	308	0.16
61	14.52	33.38	75	10.49	33.39	25.63	237	0.22
70	11.23	33.38	100	9.54	33.58	25.94	207	0.28
80	10.16	33.41	150	8.74	33.90	26.32	171	0.38
90	9.78	33.46	200	8.18	34.09	26.55	149	0.46
100	9.54	33.58	250	7.65	34.13	26.66	139	0.53
125	9.11	33.77	300	7.12	34.19	26.79	127	0.60
153	8.70	33.91	400	6.38	34.28	26.96	110	0.72
202	8.15	34.09	500	5.80	34.34	27.08	99	0.83
260	7.54	34.14	600	5.34	34.38	27.17	91	0.94
362	6.64	34.25						
485	5.87	34.33						
606	5.33	34.38						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

E. W. SCRIPPS; April 11, 1954; 2234 GCT; 30°47'N, 121°35'W; sounding, 2250 fm; wind, 270°, force 5; weather, overcast; sea, very rough; wire angle, 10°. 93.90

0	14.2	33.14	0	14.2	33.14	24.73	322	0.00
10	14.77	33.14	10	14.77	33.14	24.61	334	0.03
30	14.70	33.15	20	14.76	33.15	24.62	333	0.07
40	14.54	33.12	30	14.70	33.15	24.63	332	0.10
50	13.40	33.02	50	13.40	33.02	24.80	316	0.16
60	12.80	32.93	75	12.50	33.04	24.99	298	0.24
70	12.70	33.04	100	10.29	33.27	25.57	242	0.31
80	12.08	33.04	150	9.00	33.66	26.09	193	0.42
89	11.77	33.26	200	8.19	33.89	26.40	164	0.51
99	10.35	33.27	250	7.50	34.00	26.58	146	0.59
123	9.65	33.43	300	6.94	34.08	26.72	133	0.66
151	8.98	33.67	400	6.02	34.17	26.92	114	0.79
199	8.20	33.89	500	5.39	34.24	27.05	102	0.90
258	7.40	34.02	600	(5.03)	(34.33)	(27.16)	(92)	(1.01)
359	6.40	34.14						
475	5.52	34.22						
598	5.04	34.33						

E. W. SCRIPPS; April 13, 1954; 1040 GCT; 31°55'N, 117°49'W; sounding, 450 fm; wind, calm; weather, fog; sea, moderate; wire angle, 00°. 97.40

0	14.8	33.39	0	14.8	33.39	24.80	316	0.00
12	14.84	33.37	10	14.85	33.37	24.77	319	0.03
32	14.40	33.37	20	14.69	33.37	24.80	316	0.06
42	12.21	33.29	30	14.45	33.37	24.85	311	0.10
51	11.23	33.25	50	11.29	33.25	25.38	260	0.15
61	10.94	33.57	75	10.61	33.54	25.73	227	0.21
70	10.72	33.53	100	9.99	33.62	25.90	211	0.27
80	10.50	33.55	150	9.15	33.92	26.27	176	0.37
90	10.25	33.59	200	8.72	34.11	26.49	155	0.45
100	9.99	33.62	250	8.53	34.22	26.60	145	0.53
124	9.53	33.78	300	7.98	34.25	26.71	134	0.60
153	9.11	33.93	400	6.93	34.32	26.91	115	0.73
202	8.70	34.12	500	6.20	34.38	27.06	101	0.84
261	8.48	34.23	600	5.56	34.39	27.15	92	0.95
364	7.23	34.29						
483	6.31	34.38						
608	5.51	34.39						

E. W. SCRIPPS; April 12, 1954; 2208 GCT; 31°16'N, 119°07.5'W; sounding, 1700 fm; wind, 300°, force 4; weather, overcast; sea, rough; wire angle, 10°. 97.60

0	15.1	33.50	0	15.1	33.50	24.81	315	0.00
10	15.08	33.49	10	15.08	33.49	24.81	315	0.03
30	15.07	33.48	20	15.08	33.48	24.80	316	0.06
40	14.38	33.53	30	15.07	33.48	24.81	315	0.10
50	12.22	33.58	50	12.22	33.58	25.47	252	0.15
60	11.00	33.65	75	10.69	33.78	25.90	211	0.21
70	10.20	33.73	100	8.72	33.87	26.30	173	0.26
79	9.37	33.79	150	8.29	34.00	26.47	157	0.34
89	8.94	33.78	200	7.82	34.07	26.59	146	0.42
98	8.76	33.86	250	7.37	34.13	26.70	135	0.49
122	8.43	33.96	300	6.95	34.19	26.81	125	0.56
151	8.28	34.00	400	6.22	34.28	26.98	109	0.68
198	7.82	-	500	5.69	34.34	27.09	98	0.79
255	7.31	34.14	600	(5.28)	(34.37)	(27.17)	(91)	(0.89)
355	6.54	34.24						
471	5.83	34.33						
596	5.29	34.37						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

97.80

E. W. SCRIPPS: April 12, 1954; 0951 GCT; 30°35.5'N, 120°30'W; sounding, 2000 fm; wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 18°.

0	14.6	33.37	0	14.6	33.37	24.82	314	0.00
10	14.74	33.37	10	14.74	33.37	24.79	317	0.03
28	14.73	33.37	20	14.73	33.37	24.79	317	0.06
37	14.73	33.32	30	14.73	33.36	24.79	317	0.10
46	14.61	33.30	50	14.22	33.25	24.81	315	0.16
54	13.38	33.10	75	11.82	33.12	25.18	280	0.23
63	12.66	33.03	100	9.90	33.22	25.60	240	0.30
72	12.09	33.08	150	9.06	33.84	26.22	181	0.40
80	11.29	33.15	200	8.37	33.99	26.45	159	0.49
89	10.48	33.12	250	7.84	34.07	26.59	146	0.57
111	9.61	33.46	300	7.29	34.15	26.73	132	0.64
136	9.35	33.75	400	6.70	34.25	26.89	117	0.77
179	8.56	33.95	500	5.96	34.30	27.03	104	0.89
231	8.08	34.04						
323	7.10	34.18						
429	6.52	34.27						
546	5.56	34.31						

100.29

E. W. SCRIPPS; April 15, 1954; 0220 GCT; 31°42.5'N, 116°43.5'W; sounding, 50 fm; wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 02°.

0	14.30	33.40	0	14.30	33.40	24.91	305	0.00
10	13.22	33.50	10	13.22	33.50	25.21	277	0.03
15	12.60	33.52	20	11.74	33.57	25.55	244	0.06
20	11.74	33.57	30	10.93	33.60	25.72	228	0.08
25	11.42	33.58	50	10.11	33.66	25.91	210	0.12
30	10.93	33.60						
35	10.49	33.66						
40	10.29	33.62						
50	10.11	33.66						

100.50

E. W. SCRIPPS; April 15, 1954; 1550 GCT; 30°58.5'N, 118°04'W; sounding, 904 fm; wind, 200°, force 1; weather, overcast; sea, rough; wire angle, 07°.

0	15.1	33.17	0	15.1	33.17	24.56	339	0.00
12	14.90	33.19	10	14.91	33.19	24.62	333	0.03
27	14.89	33.17	20	14.89	33.18	24.61	334	0.07
52	13.71	33.10	30	14.89	33.17	24.60	335	0.10
61	12.77	33.12	50	13.94	33.10	24.75	320	0.17
70	11.90	33.10	75	11.57	33.11	25.22	276	0.24
80	11.25	33.12	100	10.31	33.19	25.51	248	0.31
99	10.36	33.18	150	8.79	33.84	26.26	177	0.41
123	9.29	33.48	200	8.13	34.01	26.50	154	0.50
151	8.76	33.85	250	7.95	34.09	26.59	146	0.58
199	8.14	34.01	300	7.49	34.13	26.69	136	0.65
265	7.90	34.11	400	6.10	34.22	26.95	111	0.78
367	6.32	34.18	500	5.62	34.31	27.08	99	0.89
493	5.67	34.31	600	5.21	34.37	27.17	91	0.99
673	4.96	34.41	700	4.85	34.42	27.25	83	1.08
894	4.25	34.49	800	4.53	34.46	27.32	76	1.17
1195	3.45	34.54	1000	3.95	34.51	27.42	67	1.33

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

E. W. SCRIPPS; April 16, 1954; 0451 GCT; 30°20.5'N, 119°26.5'W; sounding, 2000 fm; wind, calm; weather, overcast; sea, moderate; wire angle, 06°. 100.70

0	15.5	33.48	0	15.5	33.48	24.71	324	0.00
15	15.00	33.48	10	15.08	33.48	24.80	316	0.03
30	14.98	33.40	20	15.00	33.46	24.81	315	0.06
55	13.80	33.24	30	14.98	33.40	24.76	320	0.10
64	13.44	33.25	50	14.02	33.26	24.86	310	0.16
74	11.42	33.18	75	11.28	33.18	25.33	265	0.23
83	10.43	33.20	100	9.69	33.41	25.78	222	0.29
102	9.64	33.42	150	8.52	33.76	26.24	179	0.39
126	9.02	33.64	200	7.97	34.03	26.54	150	0.48
153	8.48	33.78	250	7.66	34.09	26.63	142	0.55
200	7.97	34.03	300	7.40	34.08	26.66	139	0.62
266	7.58	34.09	400	6.37	34.14	26.85	121	0.76
365	6.96	34.08	500	(5.44)	(34.26)	(27.06)	(101)	(0.88)
490	5.44	34.26						

E. W. SCRIPPS; April 16, 1954; 1630, 1707 GCT; 29°47'N, 120°40'W; sounding, 2000 fm; wind, 300°, force 1; weather, overcast; sea, very rough; wire angle, 03°, 02°. 100.90

0	16.2	33.33	0	16.2	33.33	24.44	350	0.00
14	16.10	33.40	10	16.11	33.38	24.50	344	0.04
29	16.10	33.44	20	16.10	33.42	24.53	341	0.07
54	16.10	33.35u	30	16.10	33.44	24.55	340	0.10
64	16.09	33.45	50	16.10	33.45	24.55	339	0.17
74	16.08	33.41	75	16.08	33.41	24.53	341	0.26
83	16.06	33.45	100	15.26	33.42	24.72	323	0.34
102	15.10	33.41	150	11.67	33.24	25.31	267	0.49
127	13.36	33.31	200	9.72	33.61	25.93	208	0.61
156	11.33	33.24	250	8.88	33.72	26.16	186	0.71
205	9.61	33.64	300	8.02	33.86	26.40	164	0.80
273	8.51	33.76	400	6.43	34.08	26.79	127	0.95
			500	5.79	34.15	26.93	113	1.08
377	6.66	34.05	600	5.44	34.22	27.03	104	1.19
503	5.78	34.15	700	5.06	34.29	27.13	94	1.30
693	5.07	34.29	800	4.61	34.42	27.28	80	1.40
905	4.24	34.50	1000	3.98	34.50	27.41	68	1.56
1228	3.45	34.47						

SIO

CCOFI
5404

100.90

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

SPENCER F. BAIRD; April 18, 1954; 0917, 0938, 1045, 1115, 1309 GCT; 29°42'N, 120°49'W; sounding, 2120 fm; wind, 330°, force 3; weather, overcast; sea, moderate; wire angle, 22°, 30°, 36°, 36°, 20°.

0	16.1	33.40	0	16.1	33.40	24.52	342	0.00
10	16.16	33.40	10	16.16	33.40	24.50	344	0.04
			20	16.17	33.40	24.50	344	0.08
26	16.16	33.41	30	16.14	33.42	24.52	342	0.11
39	16.07	33.44	50	16.07	33.42	24.54	340	0.18
47	16.06	33.42	75	16.08	33.45	24.56	339	0.26
55	16.08	33.42	100	15.79	33.37	24.56	339	0.34
64	16.08	33.46	150	11.80	33.42	25.42	257	0.49
72	-	33.45	200	9.25	33.63	26.03	199	0.61
84	16.08	33.47	250	8.17	33.85	26.37	166	0.70
91	16.06	33.43	300	7.61	33.95	26.53	151	0.78
110	15.04	33.33	400	6.60	34.10	26.79	127	0.93
132	13.14	33.37	500	5.72	34.21	26.99	108	1.05
175	10.26	33.49	600	5.30	34.34	27.14	93	1.16
			700	5.02	34.34	27.17	91	1.26
222	8.68	33.78	800	4.57	34.45	27.31	77	1.35
			1000	3.99	34.48	27.38	69	1.51
340	7.24	34.02						
458	5.97	34.17						
585	5.38	34.32						
526a)	5.60	34.23						
631	5.12	34.35						
732	4.94	34.34						
785	4.66	34.43						
848	4.33	34.47						
896	4.20	34.47						
945	4.11	-						
994	3.99	-						
1043	3.86	-						
1093	3.73	34.50						
1152	3.57	34.51						
1252	3.38	34.52						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

SPENCER F. BAIRD; April 19, 1954; 0313, 0937 GCT; 28°41.5'N, 122°43'W; sounding, 2310 fm; wind, 330°, force 3; weather, cloudy; sea, moderate; wire angle, 25°, 15°.

0	15.8	33.22	0	15.8	33.22	24.45	349	0.00
9	15.96	33.21	10	15.95	33.21	24.40	354	0.04
28	15.46	33.21	20	15.55	33.21	24.49	345	0.07
37	15.45	33.19	30	15.45	33.21	24.52	342	0.10
46	15.47	33.19	50	15.44	33.18	24.49	345	0.17
55	15.36	33.17	75	13.85	33.05	24.73	322	0.26
64	14.90	33.13	100	12.55	33.08	25.02	295	0.33
73	14.00	33.06	150	10.11	33.27	25.60	240	0.47
82	13.48	33.02	200	8.70	33.72	26.19	184	0.58
91	13.16	33.06	250	8.06	33.99	26.49	155	0.66
112	11.78	33.10	300	7.50	34.05	26.62	143	0.74
138	10.57	33.17	400	6.48	34.13	26.83	123	0.88
181	9.06	33.56	500	5.89	34.26	27.01	106	1.00
235	8.25	33.96	600	5.38	34.35	27.14	93	1.11
324	7.24	34.07	700	4.79	34.40	27.25	83	1.20
433	6.21	34.16	800	4.37	34.42	27.31	77	1.29
552	5.54	34.29	1000	3.81	34.54	27.46	63	1.45
486a)	5.94	34.25						
595	5.42	34.34						
681	4.84	34.40						
733	4.70	34.40						
781	4.43	34.42						
828	4.27	34.43						
876	4.15	34.49						
923	4.00	34.50						
972	3.88	34.52						
1020	3.78	34.54						
1073	3.63	34.54						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

100.150

SPENCER F. BAIRD; April 20, 1954; 0305, 0445 GCT; 27°40.5'N, 124°45.5'W; sounding, 2350 fm; wind, 350°, force 2; weather, overcast; sea, moderate; wire angle, 10°, 10°.

0	17.5	33.80	0	17.5	33.80	24.50	344	0.00
10	17.48	33.78	10	17.48	33.78	24.48	346	0.03
29	17.35	33.84	20	17.40	33.83	24.54	340	0.07
39	17.32	33.84	30	17.35	33.84	24.56	339	0.10
49	17.27	33.84	50	17.26	33.84	24.58	337	0.17
59	17.23	33.84	75	17.07	33.80	24.60	335	0.26
69	17.13	33.82	100	16.80	33.76	24.63	332	0.34
78	17.02	33.78	150	14.59	33.68	25.07	290	0.51
88	16.81	33.71	200	11.13	33.49	25.60	240	0.65
98	16.80	33.75	250	9.23	33.77	26.14	188	0.76
123	16.29	33.82	300	8.18	33.88	26.39	164	0.85
153	14.26	33.66	400	6.80	34.00	26.68	137	1.01
202	10.87	33.49	500	5.68	34.14	26.94	112	1.14
260	8.98	33.80	600	5.20	34.24	27.07	100	1.25
364	7.22	33.96	700	4.91	34.35	27.19	89	1.35
482	5.73	34.11	800	4.65	34.42	27.28	80	1.44
			1000	3.94	34.46	27.38	71	1.61
501	5.68	34.14						
603	5.18	34.24						
700	4.91	34.35						
754	4.80	34.38						
801	4.64	34.42						
851	4.42	34.39						
900	4.36	34.44						
949	4.06	34.44						
998	3.94	34.46						
1047	3.83	34.48						
1100	3.67	34.49						
1200	3.44	34.47						

103.30

E. W. SCRIPPS; April 19, 1954; 1902 GCT; 31°05'N, 116°25'W; sounding, 33 fm; wind, 270°, force 2; weather, overcast; sea, moderate; wire angle, 00°.

0	12.08	33.62	0	12.08	33.62	25.52	247	0.00
10	11.52	33.64	10	11.52	33.64	25.64	236	0.02
15	11.02	33.51	20	10.59	33.60	25.78	222	0.05
20	10.59	33.60	30	10.02	33.62	25.89	212	0.07
25	10.28	33.59	50	9.14	33.66	26.07	195	0.11
30	10.02	33.62						
35	9.64	33.62						
40	9.61	33.66						
50	9.14	33.66						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} T_3 cm/g	dyn. m

E. W. SCRIPPS; April 20, 1954; 0105 GCT; 30°45'N, 117°17.5'W; sounding, 850 fm; wind, 280°, force 3; weather, overcast; sea, moderate; wire angle, 11°. 103.40

0	15.1	33.21	0	15.1	33.21	24.59	336	0.00
10	15.00	33.24	10	15.00	33.24	24.64	331	0.03
30	14.92	33.19	20	14.93	33.22	24.64	331	0.07
40	14.91	33.19	30	14.92	33.19	24.62	333	0.10
50	14.42	33.19	50	14.42	33.19	24.72	323	0.17
60	13.13	33.13	75	11.98	33.07	25.12	285	0.24
70	12.45	33.10	100	10.24	33.23	25.55	244	0.31
79	11.56	33.05	150	9.05	33.84	26.22	181	0.42
88	10.86	33.07	200	8.61	34.07	26.47	157	0.50
98	10.32	33.20	250	7.61	34.04	26.60	145	0.58
121	9.36	33.44	300	7.28	34.13	26.72	133	0.65
149	9.08	33.84	400	6.81	34.28	26.90	116	0.78
196	8.67	34.07	500	6.15	34.35	27.04	103	0.90
252	7.58	34.04	600	(5.62)	(34.38)	(27.13)	(94)	(1.00)
351	7.09	34.22						
466	6.38	34.33						
588	5.70	34.38						

E. W. SCRIPPS; April 20, 1954; 1302, 1325 GCT; 30°06'N, 118°25'W; sounding, 1750 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 10°, 11°. 103.60

0	15.1	33.17	0	15.1	33.17	24.56	339	0.00
10	15.14	33.17	10	15.14	33.17	24.55	340	0.03
30	15.08	33.14	20	15.12	33.16	24.55	340	0.07
40	14.57	33.10	30	15.08	33.14	24.54	340	0.10
50	14.34	33.11	50	14.34	33.11	24.68	327	0.17
60	14.05	33.09	75	14.09	33.18	24.78	318	0.25
			100	12.00	33.13	25.16	281	0.32
70	14.16	33.19	150	9.71	33.39	25.77	223	0.45
80	13.92	33.15	200	8.70	33.85	26.29	174	0.55
90	12.95	33.10	250	7.88	33.98	26.51	153	0.64
99	12.08	33.13	300	7.58	34.12	26.67	138	0.71
123	10.68	33.24	400	7.00	34.23	26.83	123	0.85
152	9.66	33.40	500	6.30	34.22	26.92	114	0.97
199	8.76	33.84	600	(5.72)	(34.39)	(27.13)	(94)	(1.08)
257	7.80	34.00						
357	7.35	34.25						
473	6.46	34.21						
595	5.76	34.38						

E. W. SCRIPPS; April 17, 1954; 1158 GCT; 29°25'N, 119°43'W; sounding, 1800 fm; wind, 280°, force 4; weather, overcast; sea, rough; wire angle, 12°. 103.80

0	15.6	33.26	0	15.6	33.26	24.52	342	0.00
10	15.54	33.22	10	15.54	33.22	24.50	344	0.03
30	15.38	33.24	20	15.42	33.23	24.54	340	0.07
40	15.36	33.22	30	15.38	33.24	24.55	340	0.10
50	15.24	33.19	50	15.24	33.19	24.55	340	0.17
59	14.78	33.13	75	13.93	33.03	24.70	325	0.25
68	14.21	33.04	100	13.08	33.13	24.95	301	0.33
78	13.82	33.03	150	10.33	33.31	25.60	240	0.47
88	13.40	33.04	200	9.19	33.82	26.19	184	0.58
97	13.23	33.12	250	8.48	34.09	26.51	153	0.66
120	11.51	33.17	300	8.00	34.14	26.62	143	0.74
149	10.34	33.30	400	7.27	34.21	26.78	128	0.88
196	9.24	33.78	500	6.57	34.29	26.94	112	1.01
253	8.42	34.10	600	(5.89)	(34.29)	(27.02)	(105)	(1.12)
353	7.63	34.17						
469	6.79	34.29						
593	5.95	34.29						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

107.35

E. W. SCRIPPS; April 19, 1954; 0923 GCT; 30°15'N, 116°25.5'W; sounding, 900 fm; wind, 280°, force 3; weather, overcast; sea, rough; wire angle, 18°.

0	15.2	33.19	0	15.2	33.19	24.55	340	0.00
10	15.18	33.31	10	15.18	33.31	24.65	330	0.03
29	14.32	33.26	20	14.79	33.29	24.72	323	0.07
39	12.85	33.21	30	14.24	33.26	24.81	315	0.10
48	12.28	33.24	50	12.18	33.25	25.22	276	0.16
58	11.58	33.29	75	10.90	33.49	25.64	236	0.22
67	11.17	33.34	100	9.39	33.52	25.92	209	0.28
76	10.86	33.49	150	8.91	33.89	26.28	175	0.38
85	10.09	33.42	200	8.67	34.13	26.51	153	0.46
94	9.56	33.44	250	8.18	34.20	26.64	141	0.53
116	9.15	33.68	300	7.94	34.34	26.79	127	0.60
142	8.94	33.83	400	7.12	34.29	26.86	120	0.73
186	8.79	34.11	500	6.29	34.29	26.98	109	0.85
240	8.22	34.18	600	(5.61)	(34.36)	(27.12)	(95)	(0.96)
336	7.74	34.38						
445	6.71	34.27						
565	5.82	34.34						

107.50

E. W. SCRIPPS; April 18, 1954; 2339 GCT; 29°51.5'N, 117°24'W; sounding, 1250 fm; wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 15°.

0	15.5	33.26	0	15.5	33.26	24.54	340	0.00
10	15.46	33.25	10	15.46	33.25	24.54	340	0.03
30	15.24	33.21	20	15.39	33.22	24.54	340	0.07
40	15.00	33.33	30	15.24	33.21	24.56	339	0.10
49	14.83	33.30	50	14.81	33.30	24.72	323	0.17
58	14.79	33.30	75	13.82	33.25	24.89	307	0.25
68	14.32	33.30	100	11.05	33.14	25.34	264	0.32
78	13.56	33.21	150	9.42	33.73	26.08	194	0.44
88	12.22	33.16	200	8.99	33.99	26.35	168	0.53
97	11.22	33.13	250	8.48	34.17	26.57	148	0.61
120	10.18	33.41	300	7.93	34.24	26.71	134	0.68
149	9.43	33.73	400	7.08	34.31	26.89	117	0.81
196	9.03	33.97	500	(6.35)	(34.36)	(27.02)	(105)	(0.93)
254	8.42	34.18						
354	7.43	34.28						
470	6.56	34.35						

107.70

E. W. SCRIPPS; April 18, 1954; 0549 GCT; 29°05'N, 118°43'W; sounding, 1700 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 14°.

0	15.8	33.33	0	15.8	33.33	24.53	341	0.00
10	15.72	33.30	10	15.72	33.30	24.52	342	0.03
30	15.65	33.34	20	15.70	33.32	24.54	340	0.07
39	15.58	33.36	30	15.65	33.34	24.57	338	0.10
49	15.50	33.25u	50	15.49	33.34	24.61	334	0.17
58	15.38	33.30	75	14.34	33.28	24.81	315	0.25
68	15.06	33.29	100	12.60	33.23	25.12	285	0.33
77	14.28	33.28	150	9.60	33.54	25.90	211	0.45
86	13.72	33.22	200	(8.63)	(33.84)	(26.29)	(174)	(0.55)
96	12.90	33.22	250	(8.02)	(33.96)	(26.48)	(156)	(0.63)
119	11.02	33.30	300	(7.59)	(34.07)	(26.62)	(143)	(0.71)
147	9.68	33.50	400	6.99	34.25	26.85	121	(0.85)
193	8.76	33.82	500	(6.32)	(34.33)	(27.00)	(107)	(0.97)
349	7.25	34.17						
465	6.54	34.31						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; April 28, 1954; 1319 GCT; 29°48.5'N, 115°53'W; sounding, 140 fm; wind, 300°, force 3; weather, partly cloudy; sea, smooth; wire angle, 15°. 110.33

0	14.81	33.43	0	14.81	33.43	24.82	314	0.00
5	14.82	33.40	10	14.82	33.38	24.78	318	0.03
10	14.82	33.38	20	14.13	33.36	24.91	305	0.06
15	14.70	33.40	30	12.28	33.37	25.29	269	0.09
20	14.13	33.36	50	10.76	33.44	25.62	238	0.14
25	12.86	33.37	75	9.79	33.56	25.88	213	0.20
30	12.28	33.37	100	9.52				
35	11.92	33.42						
40	11.25	33.41						
45	10.78	33.49						
50	10.76	33.44						
55	10.50	33.46						
60	10.11	33.50						
80	9.6	33.58						
100	9.52	34.04u						

HORIZON; April 28, 1954; 1719 GCT; 29°34'N, 116°17.5'W; sounding, 1390 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 31°. 110.40

0	15.46	-	0	15.46	(33.22)	(24.52)	(342)	(0.00)
10	15.43	-	10	15.43	(33.22)	(24.53)	(341)	(0.03)
28	15.32	33.22	20	15.42	(33.22)	(24.53)	(341)	(0.07)
36	15.08	33.38	30	15.30	33.23	24.56	339	0.10
45	14.32	33.26	50	14.01	33.14	24.77	319	0.17
53	13.86	33.08	75	12.51	33.14	25.07	290	0.24
61	13.43	33.05	100	10.48	33.38	25.63	237	0.31
70	12.99	33.13	150	9.01	33.71	26.13	189	0.42
84	11.40	33.17	200	8.69	34.02	26.42	162	0.51
122	9.65	33.58	250	8.42	34.20	26.60	145	0.59
160	8.88	33.77	300	7.87	34.28	26.75	130	0.66
237	8.55	34.17						
352	7.22	34.31						

HORIZON: April 29, 1954; 0359 GCT; 28°58'N, 117°47'W; sounding, 2000 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 36°. 110.60

0	-	-	0	(16.12)	(33.29)	(24.43)	(351)	(0.00)
9	16.05	33.26	10	16.03	33.26	24.42	352	0.04
26	15.48	33.22	20	15.61	33.22	24.49	345	0.07
48	15.10	33.28	30	15.39	33.23	24.54	340	0.10
60	14.77	33.28	50	15.04	33.28	24.66	329	0.17
68	14.51	33.31	75	14.10	33.26	24.84	312	0.25
80	13.52	33.24	100	11.35	33.24	25.36	262	0.32
100	11.35	33.24	150	9.30	33.71	26.08	194	0.44
126	9.93	33.44	200	8.87	34.01	26.38	166	0.53
146	9.35	33.68	250	8.47	34.16	26.56	148	0.61
191	8.94	33.97	300	7.97	34.24	26.70	135	0.68
257	8.40	34.18	400	6.99	34.28	26.87	119	0.82
345	7.50	34.27	500	6.21	34.30	26.99	108	0.94
466	6.44	34.29	600	5.65	34.34	27.10	97	1.05
635	5.49	34.36	700	(5.18)	34.39	(27.19)	(89)	(1.15)
845	-	34.45	800	(4.79)	34.43	(27.27)	(81)	(1.24)
1139	3.70	34.54	1000	(4.10)	34.50	(27.40)	(69)	(1.41)

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

110.80

HORIZON; April 29, 1954; 1215, 1245 GCT; 28°15.5'N, 118°53'W; sounding, 2200 fm; wind, 300°, force 5; weather, drizzle; sea, moderate; wire angle, 41°, 48°.

0	16.6	33.22r	0	(16.67)	(33.31)	(24.32)	(361)	(0.00)
9	16.59	33.31	10	16.58	33.31	24.34	360	0.04
25	16.09	33.31	20	16.19	33.31	24.43	351	0.07
44	15.75	33.27	30	15.99	33.30	24.46	348	0.11
56	14.82	33.34	50	15.43	33.30	24.59	336	0.18
64	14.14	33.26	75	13.34	33.15	24.91	305	0.26
75	13.34	33.15	100	11.09	33.21	25.39	260	0.33
92	11.62	33.17	150	9.44	33.63	26.00	202	0.44
115	10.29	33.39	200	8.61	33.97	26.39	164	0.54
132	9.66	33.55	250	7.92	34.08	26.58	146	0.62
			300	7.52	34.18	26.72	133	0.69
164	9.27	33.70	400	7.09	34.34	26.91	115	0.82
217	8.36	34.02	500	6.21	34.35	27.03	104	0.93
293	7.53	34.16	600	5.58	34.37	27.13	94	1.04
397	7.11	34.34	700	5.07	34.41	27.22	86	1.14
542	5.90	34.36	800	4.67	34.45	27.30	78	1.23
724	4.98	34.42	1000	3.99	34.55	27.45	64	1.39
1001	3.98	34.55						

110.90

SPENCER F. BAIRD; April 23, 1954; 1128, 1327 GCT; 27°49'N, 119°55'W; sounding, 2170 fm; wind, calm; weather, overcast; sea, moderate; wire angle, 05°, 07°.

0	15.6	33.21	0	15.6	33.21	24.48	346	0.00
10	15.74	33.22	10	15.74	33.22	24.46	348	0.03
31	15.64	33.23	20	15.67	33.23	24.49	345	0.07
41	15.62	33.22	30	15.64	33.23	24.49	345	0.10
51	15.58	33.22	50	15.59	33.22	24.49	345	0.17
61	15.52	33.26	75	15.14	33.17	24.55	340	0.26
71	15.35	33.21	100	13.80	33.15	24.82	314	0.34
81	14.60	33.15	150	10.41	33.23	25.52	247	0.48
91	14.14	33.17	200	9.11	33.73	26.13	189	0.59
101	13.78	33.15	250	8.69	34.01	26.41	163	0.68
125	11.74	33.12	300	8.39	34.15	26.57	148	0.76
156	10.18	33.30	400	7.65	34.26	26.77	128	0.91
206	9.02	33.78	500	6.63	34.26	26.91	115	1.04
265	8.60	34.06	600	5.75	34.30	27.05	102	1.16
371	7.90	34.26	700	5.25	34.33	27.14	93	1.26
490	6.57	34.26	800	4.80	34.35	27.21	87	1.36
615	5.65	34.30	1000	4.09	34.45	27.36	73	1.54
			1200	3.61	34.51	27.46	64	1.69
515a)	6.58	34.25	1500	2.97	34.52	27.53	57	1.90
618	5.64	34.31						
719	5.17	34.33						
822	4.70	34.36						
922	4.37	34.42						
1027	4.04	34.46						
1126	3.80	34.50						
1231	3.55	34.46u						
1331	3.28	34.52						
1435	3.06	34.52						
1546	2.87	34.52						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

SPENCER F. BAIRD; April 22, 1954; 1300, 1547 GCT; 26°57.5'N, 121°35'W; sounding, 2250 fm; wind, 320°, force 2; weather, overcast; sea, rough; wire angle, 03°, 08°.

0	16.6	33.43	0	16.6	33.43	24.42	352	0.00
10	16.54	33.42	10	16.54	33.42	24.43	351	0.03
30	16.36	33.41	20	16.48	33.41	24.44	350	0.07
40	16.20	33.36	30	16.36	33.41	24.46	348	0.10
50	16.08	33.34	50	16.08	33.34	24.47	347	0.17
60	15.99	33.33	75	15.28	33.37	24.68	327	0.26
70	15.44	33.37	100	13.84	33.29	24.92	304	0.34
80	15.13	33.37	150	11.50	33.72	25.71	229	0.47
90	14.68	33.34	200	10.68	34.12	26.17	185	0.58
100	13.84	33.29	250	10.02	34.32	26.44	160	0.67
125	12.20	33.33	300	9.42	34.32	26.54	150	0.75
155	11.40	33.81	400	8.13	34.32	26.74	131	0.90
205	10.60	34.15	500	7.03	34.34	26.92	114	1.03
266	9.86	34.32	600	6.20	34.36	27.04	103	1.14
371	8.50	34.32	700	5.50	34.38	27.15	92	1.25
491	7.10	34.32	800	5.05	34.43	27.24	84	1.35
616	6.10	34.37	1000	4.26	34.45	27.34	74	1.52
			1200	3.70	34.52	27.46	64	1.68
519a)	6.92	34.34	1500	2.95	34.56	27.55	54	1.89
623	6.03	34.35						
723	5.37	34.39						
828	4.96	34.43						
928	4.50	34.43						
1032	4.18	34.47						
1133	3.84	34.51						
1238	3.62	34.52						
1338	3.36	34.53						
1443	3.08	34.52u						
1554	2.88	34.58						

a) Overlapping casts; reconciliation of property curves when necessary.

110.150

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m

SPENCER F. BAIRD; April 21, 1954; 1928, 2215 GCT; 25°56'N, 123°32.5'W; sounding, 2265 fm; wind, 340°, force 2; weather, overcast; sea, rough; wire angle, 11°, 20°.

0	17.1	33.68	0	17.1	33.68	24.49	345	0.00
10	17.18	33.67	10	17.18	33.67	24.47	347	0.03
30	16.95	33.65	20	17.01	33.65	24.50	344	0.07
39	16.96	33.65	30	16.95	33.65	24.51	343	0.10
49	16.89	33.65	50	16.90	33.65	24.52	342	0.17
60	16.94	33.65	75	17.08	33.70	24.52	342	0.26
68	16.96	33.68	100	16.78	33.66	24.56	339	0.34
79	17.12	33.70	150	13.64	33.50	25.12	285	0.50
89	16.83	33.70	200	10.26	33.63	25.86	215	0.63
99	16.79	33.66	250	9.25	34.03	26.34	169	0.73
123	16.02	33.64	300	8.69	34.16	26.53	151	0.81
152	13.48	33.50	400	7.62	34.24	26.75	130	0.96
200	10.26	33.63	500	6.48	34.28	26.95	111	1.08
259	9.16	34.08	600	5.62	34.32	27.08	99	1.20
361	8.06	34.22	700	5.25	34.39	27.19	89	1.30
479	6.76	34.27	800	4.85	34.42	27.26	82	1.39
602	5.75	34.30	1000	(4.12)	(34.46)	(27.37)	(72)	(1.57)
484a)	6.60	34.26						
585	5.70	34.33						
682	5.30	34.38						
734	5.12	34.40						
783	4.90	34.41u						
831	4.74	34.42						
880	4.56	34.42						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

SPENCER F. BAIRD; April 21, 1954; 0045, 0250 GCT; 25°21.5'N, 125°21'W; sounding, 2400 fm; wind, 350°, force 2; weather, overcast; sea, very rough; wire angle, 14°, 12°. 110.180

0	18.1	33.92	0	18.1	33.92	24.44	350	0.00
10	17.89	33.91	10	17.89	33.91	24.48	346	0.03
30	17.67	33.91	20	17.77	33.91	24.51	343	0.07
39	17.58	33.92	30	17.67	33.91	24.54	340	0.10
49	17.90	34.00	50	17.93	34.01	24.55	340	0.17
59	18.18	34.14	75	17.78	34.33	24.83	313	0.25
78	17.77	34.33	100	18.02	34.26	24.72	323	0.33
87	18.21	34.30	150	14.90	33.87	25.14	283	0.49
97	18.12	34.28	200	11.25	33.68	25.72	228	0.62
121	16.97	34.13	250	9.23	33.89	26.23	180	0.72
149	15.00	33.88	300	8.03	33.97	26.48	156	0.81
197	11.48	33.68	400	7.12	34.15	26.76	129	0.96
253	9.11	33.90	500	6.63	34.36	26.99	108	1.08
356	7.32	34.06	600	5.89	34.36	27.08	99	1.19
474	6.88	34.32	700	5.41	34.39	27.16	92	1.30
597	5.90	34.36	800	4.79	34.43	27.27	81	1.39
			1000	4.00	34.49	27.40	69	1.56
495a)	6.69	34.36						
596	5.96	34.36						
693	5.44	34.39						
747	5.04	34.42						
795	4.80	34.43						
844	4.60	34.43						
893	4.38	34.47						
942	4.19	34.49						
990	4.02	34.49						
1040	3.86	34.50						
1095	3.71	34.51						
1194	3.48	34.54						

HORIZON; April 30, 1954; 1927 GCT; 29°13.5'N, 115°42'W; sounding, 740 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 42°. 113.35

0	-	-	0	(14.38)	(33.38)	(24.88)	(308)	(0.00)
9	14.38	33.37	10	14.38	33.37	24.87	309	0.03
24	14.3	33.36	20	14.35	33.36	24.87	309	0.06
35	14.21	33.37	30	14.29	33.37	24.89	307	0.09
46	12.76	33.35	50	11.75	33.35	25.38	260	0.15
52	11.46	33.35	75	9.92	33.53	25.84	217	0.21
59	10.97	33.34	100	9.60	33.85	26.14	188	0.26
70	9.99	33.33	150	9.10	34.10	26.42	162	0.35
75	9.92	33.53	200	8.75	34.19	26.54	150	0.43
84	9.73	33.67	250	8.70	34.22	26.58	146	0.50
102	9.58	33.86	300	8.42	34.28	26.67	138	0.58
118	9.42	33.94	400	7.54	34.40	26.89	117	0.71
159	9.02	34.13	500	(6.73)	(34.36)	(26.97)	(110)	(0.83)
196	8.76	34.19						
274	8.65	34.24						
377	7.75	34.40						
499	6.73	34.36						

a) Overlapping casts; reconciliation of property curves when necessary.

113.50

HORIZON; April 30, 1954; 1045, 1110 GCT; 28°45.5'N, 116°37.5'W; sounding, 2150 fm; wind, 300°, force 5; weather, overcast; sea, rough; wire angle, 48°, 49°.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m
0	-	-	0	(16.20)	(33.43)	(24.52)	(342)	(0.00)
9	16.20	33.39	10	16.20	33.39	24.49	345	0.03
23	16.2	33.34	20	16.20	33.34	24.45	349	0.07
33	16.18	33.39u	30	16.20	33.33	24.44	350	0.10
44	16.06	33.32	50	16.02	33.32	24.47	347	0.17
50	16.02	33.42u	75	15.30	33.33	24.64	331	0.26
56	15.94	33.32	100	12.78	33.19	25.06	291	0.34
			150	9.80	33.43	25.78	222	0.47
66	15.82	33.31	200	8.76	33.89	26.31	172	0.57
73	15.3	33.33	250	8.46	34.19	26.59	146	0.65
83	14.29	33.26	300	7.99				
102	12.61	33.19	400	6.99				
119	11.01	33.19	500	(6.18)				
149	9.85	33.43						
185	8.89	33.78						
253	8.42	34.20						
345	7.53	34.47u						
451	6.53	34.27u						

113.70

HORIZON; April 30, 1954; 0123 GCT; 28°02'N, 117°55.5'W; sounding, 1700 fm; wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 15°.

0	-	-	0	(16.72)	(33.42)	(24.39)	(355)	(0.00)
10	16.70	33.42	10	16.70	33.42	24.39	355	0.04
30	16.49	33.42	20	16.67	33.42	24.40	354	0.07
45	15.90	33.31	30	16.49	33.42	24.44	350	0.11
59	15.38	33.33	50	15.70	33.32	24.54	340	0.18
69	14.42	33.22	75	13.90	33.21	24.85	311	0.26
79	13.63	33.21	100	11.32	33.24	25.37	262	0.33
103	11.09	33.25	150	9.32	33.64	26.02	200	0.45
117	10.36	33.34	200	8.73	34.03	26.42	162	0.54
146	9.40	33.60	250	8.37	34.12	26.55	149	0.62
174	8.89	33.87	300	7.32	34.10	26.69	136	0.69
232	8.59	34.13	400	6.92	34.33	26.92	114	0.82
300	7.32	34.10	500	6.20	34.34	27.03	104	0.94
417	6.86	34.34	600	5.56	34.36	27.12	95	1.04
556	5.78	34.35	700	5.16	34.40	27.20	88	1.14
700	5.16	34.40						

117.30

CREST; April 16, 1954; 1458 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 330°, force 3; weather, fog; sea, moderate; wire angle, 00°.

0	14.89	33.44	0	14.89	33.44	24.81	315	0.00
10	14.84	33.45	10	14.84	33.45	24.83	313	0.03
20	13.87	33.42	20	13.87	33.42	25.01	296	0.06
26	13.61	33.43	30	13.23	33.44	25.16	281	0.09
31	13.17	33.44	50	10.90	33.58	25.71	229	0.14
36	12.72	33.48	75	9.81	33.79	26.06	196	0.20
41	11.55	33.54						
46	11.02	33.49						
51	10.88	33.59						
57	10.76	33.68						
62	10.30	33.78						
72	9.90	33.78						
82	9.62	33.95						
92	9.60	33.98						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; April 16, 1954; 2248 GCT; 28°26.5'N, 115°36'W; sounding, 530 fm; wind, 340°, force 3; weather, fog; sea, moderate; wire angle, 14°. 117.40

0	15.1	33.33	0	15.1	33.33	24.68	327	0.00
10	14.90	33.30	10	14.90	33.30	24.70	325	0.03
30	13.60	33.24	20	14.15	33.27	24.84	312	0.06
40	13.26	33.32	30	13.60	33.24	24.93	303	0.10
50	12.76	33.33	50	12.76	33.33	25.17	280	0.15
60	11.79	33.24	75	10.78	33.26	25.48	251	0.22
70	11.19	33.24	100	9.70	33.44	25.81	220	0.28
79	10.42	33.36	150	9.36	33.96	26.27	176	0.38
90	10.04	33.42	200	8.73	34.09	26.47	157	0.46
98	9.74	33.43	250	8.57	34.17	26.56	148	0.54
123	9.52	33.78	300	8.29	34.27	26.68	137	0.62
151	9.34	33.96	400	7.41	34.33	26.85	121	0.75
197	8.73	34.09	500	6.24	34.33	27.01	106	0.87
254	8.53	34.26	600	(5.67)	(34.38)	(27.13)	(94)	(0.98)
352	7.92	34.34						
466	6.54	34.32						
587	5.72	34.37						

CREST; April 17, 1954; 1226 GCT; 27°46'N, 116°54'W; sounding, 1950 fm; wind, 330°, force 5; weather, overcast; sea, rough; wire angle, 25°. 117.60

0	16.3	33.48	0	16.3	33.48	24.53	341	0.00
10	16.32	33.48	10	16.32	33.48	24.53	341	0.03
85	15.51	33.31	20	(16.37)	(33.46)	(24.50)	(344)	(0.07)
94	14.59	33.30	30	(16.37)	(33.45)	(24.49)	(345)	(0.10)
103	13.99	33.22	50	(16.29)	(33.41)	(24.48)	(346)	(0.17)
111	12.87	33.16	75	(15.87)	(33.33)	(24.51)	(343)	(0.26)
120	12.12	33.21	100	14.19	33.28	24.84	312	(0.34)
129	11.22	33.37	150	11.03	33.73	25.80	221	(0.48)
137	10.93	33.33	200	10.44	34.16	26.24	179	(0.58)
145	10.86	33.54	250	9.83	34.30	26.45	159	(0.66)
153	11.09	33.83	300	9.24	34.31	26.56	148	(0.74)
170	10.88	33.87	400	8.28	34.42	26.80	126	(0.89)
221	10.20	34.29	500	7.26	34.38	26.92	114	(1.02)
308	9.18	34.31	600	(6.00)	(34.43)	(27.12)	(95)	(1.13)
399	8.31	34.42						
492	7.38	34.38						
588	6.16	34.42						

CREST; April 16, 1954; 0645 GCT; 28°24.5'N, 114°16'W; sounding, 40 fm; wind, 300°, force 5; weather, cloudy; sea, slight; wire angle, 13°. 120.25

0	15.9	33.44	0	15.9	33.44	24.59	336	0.00
5	15.22	33.43	10	15.20	33.39	24.71	324	0.03
10	15.20	33.39	20	15.18	33.40	24.72	323	0.07
15	15.20	33.44	30	14.64	33.46	24.88	308	0.10
20	15.18	33.40	50	11.07	33.67	25.75	225	0.15
24	15.05	33.47						
26	14.98	33.44						
28	14.92	33.43						
30	14.64	33.46						
32	12.28	33.40						
34	11.59	33.37						
36	11.50	33.35						
38	11.25	33.42						
43	11.03	33.53						
48	11.10	33.66						
55	10.92	33.68						
65	10.70	33.73						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m
120.35	CREST; April 15, 1954; 2337 GCT; 28°03'N, 114°54'W; sounding, 44 fm; wind, 330°, force 1; weather, clear; sea, moderate; wire angle, 02°.							
0	15.9	33.40	0	15.9	33.40	24.56	339	0.00
10	15.25	33.40	10	15.25	33.40	24.71	324	0.03
21	14.64	33.44	20	14.70	33.44	24.86	310	0.06
31	13.77	33.41	30	13.80	33.41	25.02	295	0.10
36	13.73	33.41	50	11.04	33.38	25.53	246	0.15
42	12.09	33.40	75	(10.50)	(33.75)	(25.91)	(210)	(0.21)
47	11.10	33.35						
52	11.00	33.49						
57	10.70	33.57						
62	10.50	33.66						
68	10.65	33.74						
73	10.56	33.75						
120.50	CREST; April 15, 1954; 1126 GCT; 27°31'N, 115°52'W; sounding, 2200 fm; wind, 340°, force 3; weather, overcast; sea, slight; wire angle, 17°.							
0	15.3	33.40	0	15.3	33.40	24.69	326	0.00
10	14.77	33.41	10	14.77	33.41	24.82	314	0.03
30	14.29	33.52	20	14.47	33.45	24.91	305	0.06
45	14.04	33.57	30	14.29	33.52	25.00	297	0.09
60	13.18	33.60	50	13.76	33.58	25.16	281	0.15
74	11.51	33.62	75	11.41	33.62	25.65	235	0.22
88	10.36	33.78	100	9.80	33.82	26.09	193	0.27
102	9.76	33.83	150	9.40	34.15	26.41	163	0.36
122	9.50	33.97	200	8.73	34.15	26.52	152	0.44
155	9.38	34.15	250	8.38	34.28	26.67	138	0.52
193	8.79	34.15	300	8.03	34.34	26.77	128	0.58
288	8.16	34.34	400	6.83	34.31	26.92	114	0.71
431	6.49	34.31	500	6.22	34.33	27.02	105	0.83
576	6.01	34.38	600	5.90	34.39	27.10	97	0.94
769	4.82	34.43	700	5.27	34.42	27.21	87	1.04
967	4.07	34.47	800	4.69	34.44	27.29	79	1.13
1169	3.48	34.54	1000	3.96	34.48	27.40	69	1.29
120.70	CREST; April 15, 1954; 0010 GCT; 26°52'N, 117°11'W; sounding, 2000 fm; wind, 330°, force 3; weather, overcast; sea, rough; wire angle, 12°.							
0	16.3	33.48	0	16.3	33.48	24.53	341	0.00
10	16.27	33.45	10	16.27	33.45	24.52	342	0.03
40	17.16	33.94	20	16.34	33.47	24.51	343	0.07
60	16.88	33.94	30	16.40	33.50	24.52	342	0.10
71	15.09	33.63	50	17.12	33.96	24.71	324	0.17
81	13.30	33.47	75	14.15	33.54	25.05	292	0.25
91	12.53	33.41	100	12.07	33.58	25.49	250	0.32
100	12.07	33.58	150	10.95	34.05	26.06	196	0.43
119	11.32	33.88	200	(10.82)	(34.56)	(26.48)	(156)	(0.52)
148	10.98	34.04	250	(10.16)	(34.53)	(26.58)	(146)	(0.60)
198	10.83	34.56	300	(9.54)	(34.51)	(26.67)	(138)	(0.67)
343	9.02	34.50	400	8.32	34.50	26.85	121	(0.81)
490	7.28	34.50	500	7.15	34.50	27.03	104	(0.93)
637	5.82	34.48	600	6.10	34.49	27.16	92	(1.03)
784	5.08	34.43	700	5.48	34.45	27.20	88	(1.13)
982	4.24	34.47	800	5.00	34.43	27.25	83	(1.22)
1183	3.65	34.49	1000	4.20	34.47	27.37	72	(1.40)

120.90

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

SPENCER F. BAIRD; April 26-27, 1954; 2055, 0120 GCT; 26°13'N, 118°28.5'W; sounding, 2550 fm; wind, 320°, force 1; weather, cloudy; sea, slight; wire angle, 12°, 20°.

0	17.9	33.55	0	17.9	33.55	24.21	372	0.00
10	17.02	33.43	10	17.02	33.43	24.33	360	0.04
30	15.85	33.28	20	16.13	33.31	24.44	350	0.07
40	15.68	33.28	30	15.85	33.28	24.48	346	0.11
49	15.14	33.22	50	15.08	33.21	24.60	335	0.18
59	14.58	33.13	75	13.04	33.15	24.97	300	0.26
69	13.56	33.13	100	11.13	33.39	25.52	247	0.32
78	12.88	33.18	150	9.54	33.70	26.03	199	0.44
88	12.74	33.30	200	9.22	34.10	26.40	164	0.53
97	11.32	33.37	250	9.07	34.22	26.52	152	0.61
121	10.46	33.51	300	8.61	34.29	26.64	141	0.69
149	9.57	33.69	400	7.57	34.34	26.84	122	0.82
197	9.24	34.09	500	6.62	34.36	26.99	108	0.95
254	9.03	34.23	600	5.99	34.39	27.09	98	1.06
355	8.00	34.33	700	5.38	34.42	27.19	89	1.16
470	7.04	34.34	800	4.78	34.44	27.28	80	1.25
592	6.06	34.38	1000	4.00	34.51	27.42	67	1.42
			1200	3.49	34.54	27.49	60	1.56
487a)	6.75	34.36	1500	(2.85)	(34.60)	(27.60)	(50)	(1.76)
584	6.02	34.40						
681	5.48	34.42						
783	4.86	34.44						
880	4.44	34.45						
980	4.06	34.50						
1078	3.81	34.52						
1181	3.52	34.54						
1279	3.29	34.55						
1383	3.04	34.58						
1492	2.88	34.60						

a) Overlapping casts; reconciliation of property curves when necessary.

S10

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5404

120.120

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm^3/g	ΔD dyn. m

SPENCER F. BAIRD; April 28, 1954; 1329, 1511 GCT; 25°13'N, 120°20.5'W; sounding, 2165 fm; wind, 330°, force 4; weather, overcast; sea, moderate; wire angle, 14°, 27°.

0	18.1	33.65	0	18.1	33.65	24.23	370	0.00
10	18.18	33.64	10	18.18	33.64	24.21	372	0.04
29	17.38	33.61	20	17.71	33.62	24.30	363	0.07
39	17.00	33.56	30	17.33	33.61	24.39	355	0.11
48	16.88	33.51	50	16.84	33.51	24.43	351	0.18
57	16.72	33.55	75	16.04	33.50	24.60	335	0.27
67	16.62	33.52	100	13.41	33.39	25.08	289	0.34
76	15.91	33.50	150	10.72	33.68	25.82	219	0.47
86	15.06	33.48	200	9.50	34.01	26.28	175	0.57
96	13.90	33.40	250	9.10	34.16	26.47	157	0.66
119	11.70	33.40	300	8.60	34.24	26.61	144	0.74
147	10.82	33.65	400	7.48	34.32	26.84	122	0.88
194	9.58	33.99	500	6.44	34.34	27.00	107	1.00
250	9.10	34.16	600	5.66	34.35	27.10	97	1.11
349	8.04	34.29	700	5.16	34.39	27.20	88	1.21
465	6.68	34.33	800	4.77	34.41	27.26	82	1.30
596	-	34.40	1000	4.06	34.49	27.40	69	1.47
			1200	3.50	34.49	27.45	64	1.62
471a)	6.82	34.34	1500	(2.89)	(34.54)	(27.55)	(55)	(1.83)
567	5.88	34.34						
661	5.34	34.37						
759	4.92	34.41						
852	4.59	34.42						
951	4.26	34.49						
1045	3.90	34.49						
1145	3.64	34.49						
1241	3.40	34.50						
1343	3.15	34.53						
1450	2.94	34.54						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

SPENCER F. BAIRD; April 30, 1954; 1627, 1942 GCT; 24°09'N, 122°07'W; sounding, 2305 fm; wind, 340°, force 3; weather, sky obscured; sea, moderate; wire angle, 06°, 25°. 120.150

0	18.3	33.84	0	18.3	33.84	24.33	360	0.00
10	18.45	33.82	10	18.45	33.82	24.28	365	0.04
31	18.44	33.84	20	18.46	33.83	24.28	365	0.07
40	17.88	33.75	30	18.45	33.84	24.29	364	0.11
50	17.48	33.66	50	17.48	33.66	24.39	355	0.18
60	17.38	33.68	75	17.63	33.86	24.51	343	0.27
71	17.42	33.75	100	17.07	33.98	24.74	321	0.35
80	18.04	34.03	150	14.00	33.81	25.29	269	0.50
89	18.18	34.18	200	10.19	33.76	25.98	204	0.62
98	17.27	34.00	250	9.57	34.11	26.35	168	0.72
124	15.78	33.87	300	8.98	34.27	26.57	148	0.80
153	13.76	33.80	400	7.72	34.37	26.84	122	0.94
202	10.10	33.76	500	6.74	34.41	27.01	106	1.06
261	9.47	34.20	600	5.99	34.40	27.10	97	1.17
363	8.12	34.34	700	5.40	34.41	27.18	90	1.27
482	7.05u	34.43	800	4.83	34.44	27.27	81	1.37
606	5.93	34.42	1000	4.21	34.49	27.38	71	1.54
472a)	6.94u	34.38						
568	6.18	34.38						
662	5.62	34.40						
760	5.00	34.43						
856	4.66	34.46						
955	4.35	34.49						
1051	4.04	34.49						
1153	3.73	34.51						
1250	3.51	34.53						

CREST; April 14, 1954; 0332 GCT; 27°18'N, 114°51.5'W; sounding, 211 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 28°. 123.40

0	14.0	33.40	0	14.0	33.40	24.97	300	0.00
10	13.98	33.39	10	13.98	33.39	24.97	300	0.03
19	13.89	33.37	20	13.84	33.37	24.98	299	0.06
28	13.17	33.35	30	12.75	33.36	25.19	279	0.09
37	11.20	33.47	50	10.48	33.47	25.70	230	0.14
46	10.62	33.43	75	9.78	33.75	26.03	199	0.19
54	10.31	33.57	100	10.95	34.47	26.39	164	0.24
62	10.10	33.60	150	10.54	34.46	26.46	158	0.32
69	9.60	33.57	200	10.21	34.48	26.53	151	0.40
77	9.92	33.85	250	9.67	34.49	26.63	142	0.48
85	10.62	34.10	300	8.94	34.49	26.75	130	0.55
94	10.99	34.45						
126	10.74	34.36u						
178	10.38	34.45						
232	9.92	34.49						
308	8.82	34.49						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m
123.60	CREST; April 14, 1954; 1643 GCT; 26°38'N, 116°09'W; sounding, 2050 fm; wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 08°.							
0	16.3	33.41	0	16.3	33.41	24.48	346	0.00
10	16.18	33.44	10	16.18	33.44	24.53	341	0.03
30	16.40	33.57	20	16.27	33.49	24.55	340	0.07
45	16.59	33.68	30	16.40	33.57	24.58	337	0.10
55	16.31	33.66	50	16.49	33.67	24.63	332	0.17
66	16.30	33.69	75	15.70	33.67	24.81	315	0.25
87	14.30	33.64	100	13.17	33.71	25.38	260	0.32
102	13.10	33.74	150	11.50	34.37	26.21	182	0.44
112	13.03	33.93	200	11.10	34.40	26.31	172	0.53
136	12.00	34.43	250	10.84	34.40	26.36	167	0.61
166	11.16	34.31	300	10.05	34.39	26.49	155	0.70
220	11.09	34.43	400	8.54	34.53	26.84	122	0.84
282	10.32	34.38	500	7.00	34.43	26.99	108	0.96
393	8.66	34.53	600	6.02	34.40	27.10	97	1.08
521	6.69	34.42						
659	5.69	34.39						
127.34	CREST; April 13, 1954; 0525 GCT; 26°54'N, 114.08'W; sounding, 50 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 08°.							
0	13.67	33.35	0	13.67	33.35	25.00	297	0.00
5	13.68	33.39	10	13.65	33.37	25.02	295	0.03
10	13.65	33.37	20	13.44	33.39	25.08	289	0.06
15	13.57	33.37	30	11.39	33.37	25.46	253	0.09
20	13.44	33.39	50	12.01	33.93	25.78	222	0.13
22	13.35	33.40	75	11.3	34.12	26.06	196	0.19
24	13.02	33.39						
26	12.36	33.37						
28	11.62	33.32						
30	11.39	33.37						
35	11.78	33.57						
40	12.21	33.87						
50	12.01	33.93						
60	11.68	34.02						
70	11.36	34.11						
81	11.3	34.13						
127.50	CREST; April 12, 1954; 1708, 1730, 1805 GCT; 26°24'N, 115°07'W; sounding, 1600 fm; wind, 340°, force 5; weather, overcast; sea, rough; wire angle, 29°, 30°, 28°.							
0	15.7	33.44	0	15.7	33.44	24.64	331	0.00
10	15.64	33.39	10	15.64	33.39	24.61	334	0.03
27	15.59	33.40	20	15.60	33.40	24.63	332	0.07
			30	15.56	33.40	24.64	331	0.10
42	15.44	33.39	50	15.28	33.36	24.67	328	0.17
51	15.24	33.36	75	15.00	33.37	24.74	321	0.25
59	15.07	33.34	100	12.70	33.31	25.16	281	0.32
			150	9.68	33.60	25.93	208	0.45
75	15.00	33.37	200	9.00	34.10	26.43	161	0.54
88	14.63	33.34	250	9.20	34.36	26.61	144	0.62
94	13.32	33.30	300	8.92	34.44	26.71	134	0.69
116	11.49	33.34	400	7.87	34.49	26.91	115	0.82
140	10.09	33.51	500	6.80	34.47	27.05	102	0.94
183	8.82	33.88						
235	9.27	34.33						
329	8.72	34.47						
435	7.43	34.49						
552	6.32	34.45						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; April 11, 1954; 1100 GCT; 26°29'N, 113°30.5'W; sounding, 43 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 12°. 130.30

0	14.89	33.58	0	14.89	33.58	24.92	304	0.00
10	14.85	33.58	10	14.85	33.58	24.93	303	0.03
20	14.28	33.54	20	14.28	33.54	25.02	295	0.06
30	13.61	33.62	30	13.61	33.62	25.22	276	0.09
40	13.10	33.68	50	11.94	33.62	25.55	244	0.14
50	11.94	33.62						

CREST; April 11, 1954; 1710 GCT; 26°09'N, 114°06'W; sounding, 1300 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 15°. 130.40

0	15.1	33.37	0	15.1	33.37	24.72	323	0.00
10	15.05	33.38	10	15.05	33.38	24.73	322	0.03
30	14.83	33.36	20	14.96	33.38	24.75	320	0.06
40	13.04	33.28	30	14.83	33.36	24.77	319	0.10
60	11.45	33.31	50	12.03	33.29	25.28	270	0.16
80	10.50	33.46	75	10.62	33.41	25.63	237	0.22
90	11.30	33.95	100	11.04	33.94	25.96	205	0.28
100	11.04	33.94	150	10.82	34.33	26.30	173	0.37
109	11.11	34.03	200	10.46	34.40	26.42	162	0.46
129	11.13	34.54u	250	9.55	34.42	26.59	146	0.54
148	10.83	34.32	300	8.75	34.42	26.72	133	0.61
196	10.50	34.40	400	7.49	34.40	26.90	116	0.74
293	8.83	34.42	500	6.60	34.34	26.97	110	0.86
487	6.71	34.34	600	5.94	34.45	27.15	92	0.97
682	5.48	34.52	700	5.40	34.52	27.27	81	1.06
928	4.37	34.56	800	4.89	34.54	27.35	74	1.15
1180	3.67	34.60	1000	4.10	34.57	27.46	63	1.30

CREST; April 12, 1954; 0457 GCT; 25°29'N, 115°24'W; sounding, 2150 fm; wind, 330°, force 5; weather, partly cloudy; sea, moderate; wire angle, 20°. 130.60

0	18.2	34.22	0	18.2	34.22	24.65	330	0.00
11	18.18	34.22	10	18.18	34.22	24.65	330	0.03
77	15.93	34.03	20	(18.13)	(34.21)	(24.66)	(330)	(0.07)
82	14.77	33.95	30	(18.10)	(34.20)	(24.65)	(330)	(0.10)
86	13.82	33.82	50	(18.09)	(34.19)	(24.65)	(330)	(0.17)
91	13.53	33.90	75	(16.30)	(34.05)	(24.97)	(300)	(0.24)
95	13.36	33.95	100	12.98	34.03	25.67	233	(0.31)
99	12.95	34.02	150	11.90	34.54	26.27	176	(0.42)
104	13.08	34.07	200	10.96	34.59	26.48	156	(0.50)
123	12.98	34.59	250	10.28	34.54	26.56	148	(0.58)
150	11.90	34.54	300	9.52	34.51	26.67	138	(0.65)
187	11.16	34.60	400	8.10	34.51	26.89	117	(0.79)
279	9.88	34.52	500	6.93	34.51	27.06	101	(0.90)
418	7.88	34.51	600	6.04	34.51	27.18	90	(1.01)
654	5.62	34.51	700	5.38	34.51	27.26	82	(1.10)
895	4.48	34.52	800	4.86	34.51	27.32	76	(1.19)
1148	3.69	34.64u	1000	4.10	34.57	27.46	63	(1.35)

130.90

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
SPENCER F. BAIRD; May 6, 1954; 1452, 2352 GCT; 24°27'N, 117°15'W; sounding, 2050 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 22°, 20°.								
0	18.6	34.45r	0	18.6	(34.25)	(24.57)	(338)	(0.00)
10	18.71	34.25	10	18.71	34.25	24.54	340	0.03
29	18.71	34.24	20	18.72	34.24	24.53	341	0.06
38	18.64	34.22	30	18.71	34.24	24.53	341	0.10
47	18.63	34.21	50	18.68	34.21	24.52	342	0.17
56	18.78	34.22	75	18.52	34.26	24.60	335	0.26
66	18.81	34.27	100	15.92	33.89	24.93	303	0.34
75	18.52	34.26	150	11.26	34.23	26.15	187	0.46
84	17.62	34.25	200	10.37	34.26	26.33	170	0.55
93	16.86	34.05	250	9.72	34.31	26.48	156	0.64
116	13.88	33.79	300	9.07	34.37	26.64	141	0.71
142	11.53	34.22	400	8.02	34.41	26.83	123	0.85
185	10.59	34.25	500	6.93	34.43	27.00	107	0.98
238	9.90	-	600	6.13	34.45	27.12	95	1.08
333	8.69	34.39	700	5.60	34.49	27.22	86	1.18
443	7.60	34.38	800	5.08	34.51	27.30	78	1.27
564	6.34	34.42	1000	4.29	34.52	27.40	69	1.44
488a)	7.08	34.46						
586	6.31	34.47						
683	5.68	34.49						
782	5.18	34.51						
876	4.73	34.57u						
979	4.36	34.52						
1075	4.04	34.54						
1178	3.77	-						
1277	3.51	-						
1381	3.27	-						

a) Overlapping casts; reconciliation of property curves when necessary.

130.120

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

SPENCER F. BAIRD; May 5-6, 1954; 2056, 0035 GCT; 23°31'N, 119°12'W; sounding, 2205 fm; wind, 350°, force 1; weather, cloudy; sea, moderate; wire angle, 20°, 20°.

0	19.7	33.95	0	19.7	33.95	24.06	386	0.00
10	19.26	33.96	10	19.26	33.96	24.18	375	0.04
29	19.20	33.98	20	19.21	33.98	24.21	372	0.08
38	19.18	33.96	30	19.20	33.98	24.21	372	0.11
48	18.76	33.95	50	18.71	33.95	24.31	362	0.19
57	18.58	33.91	75	16.96	33.78	24.61	334	0.27
67	17.73	33.80	100	14.19	33.57	25.06	291	0.35
76	16.86	33.78	150	11.16	33.89	25.90	211	0.48
85	15.70	33.64	200	9.94	34.22	26.38	166	0.58
95	14.66	33.57	250	9.20	34.32	26.57	148	0.66
118	12.44	33.60	300	8.64	34.36	26.69	136	0.73
146	11.27	33.86	400	7.67	34.41	26.88	118	0.86
191	10.10	34.18	500	6.91	34.43	27.00	107	0.98
245	9.28	34.31	600	6.11	34.43	27.11	96	1.09
342	8.22	34.38	700	5.54	34.43	27.18	90	1.19
454	7.13	34.43	800	4.99	34.43	27.25	83	1.29
			1000	4.23	34.51	27.39	70	1.46
490	7.00	-						
591	6.14	34.43						
686	5.62	34.43						
787	5.03	34.43						
883	4.65	34.45						
986	4.29	34.51						
1085	3.97	34.51						
1189	3.67	34.56						
1287	3.42	34.52						

S10

CCOFI
5404

130.150

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

SPENCER F. BAIRD; May 4, 1954; 0513, 0653 GCT; 22°29'N, 121°21'W; sounding, 2250 fm; wind, 360°, force 2; weather, overcast; sea, slight; wire angle, 15°, 11°.

0	18.6	33.80	0	18.6	33.80	24.23	370	0.00
10	18.72	33.78	10	18.72	33.78	24.18	375	0.04
29	18.68	33.82	20	18.70	33.81	24.21	372	0.07
40	18.65	33.80	30	18.68	33.82	24.22	371	0.11
48	18.11	33.74	50	18.10	33.74	24.30	363	0.18
58	18.10	33.77	75	17.50	33.64	24.37	357	0.28
68	18.04	33.78	100	15.16	33.51	24.81	315	0.36
77	16.93	33.62	150	11.41	33.55	25.59	240	0.50
88	16.10	33.55	200	10.40	34.06	26.17	185	0.61
96	15.44	33.52	250	9.50	34.25	26.47	157	0.70
121	13.54	33.51	300	8.97	34.33	26.62	143	0.78
149	11.44	33.55	400	8.03	34.36	26.79	127	0.92
198	10.44	34.05	500	6.93	34.38	26.96	110	1.04
254	9.44	34.26	600	6.03	34.42	27.11	96	1.16
355	8.51	34.36	700	5.40	34.42	27.19	89	1.26
470	7.12	34.36	800	5.00	34.43	27.25	83	1.35
591	6.04	34.42	1000	4.24	34.47	27.36	73	1.53
			1200	3.67	34.52	27.46	63	1.68
506a)	6.88	34.39	1500	2.90	34.56	27.57	53	1.89
609	6.03	34.42						
707	5.38	34.42						
811	4.95	34.43						
910	4.52	34.47						
1014	4.19	34.47						
1114	3.88	34.52						
1218	3.62	34.52						
1317	3.32	34.53						
1422	3.08	34.55						
1532	2.86	34.58						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{-5}T_3$ 10^{-5} cm/g	ΔD dyn. m

130.180

SPENCER F. BAIRD; May 2, 1954; 0322, 0505 GCT; 21°32'N, 123°00'W; sounding, 2280 fm; wind, 040°, force 3; weather, overcast; sea, rough; wire angle, 16°, 18°.

121	17.33	33.57	150	14.60	33.64	25.03	294
149	14.62	33.63	200	11.35	34.19	26.10	192
195	11.58	34.16	250	9.81	34.34	26.49	155
251	9.78	34.34	300	9.08	34.39	26.65	140
351	8.50	34.42	400	7.93	34.43	26.86	120
466	7.26	34.43	500	6.88	34.43	27.01	106
589	6.31	34.44	600	6.23	34.43	27.09	98
			700	5.58	34.44	27.19	89
492a)	6.94	34.42	800	5.14	34.48	27.27	81
590	6.29	34.42	1000	4.40	34.54	27.40	69
686	5.64	34.44					
786	5.21	34.48					
882	4.76	34.52					
983	4.43	34.53					
1081	4.12	34.56					
1184	3.84	34.56					

133.30

CREST; April 11, 1954; 0237 GCT; 25°56'N, 113°08.5'W; sounding, 100 fm; wind, 290°, force 4; weather, partly cloudy; sea, moderate; wire angle, 02°.

0	16.5	33.81	0	16.5	33.81	24.74	321	0.00
10	16.27	33.84	10	16.27	33.84	24.81	315	0.03
15	16.28	33.87	20	15.78	33.86	24.94	302	0.07
20	15.78	33.86	30	15.70	33.84	24.94	302	0.10
25	15.73	33.86	50	13.51	33.86	25.43	256	0.16
31	15.65	33.84	75	12.69	34.00	25.70	230	0.22
36	14.68	33.80	100	12.04	34.28	26.04	198	0.27
41	14.04	-	150	11.7	34.60	26.36	168	0.37
46	13.54	33.86						
51	13.50	33.86						
56	13.41	33.92						
61	13.15	33.96						
72	12.79	33.99						
92	12.12	34.22						
112	11.96	34.37						
132	11.79	34.54						
153	11.7	34.61						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm^3/g	ΔD dyn. m

133.50

CREST; April 10, 1954; 1427 GCT; 25°14.5'N, 114°24'W; sounding, 1900 fm; wind, 020°, force 4; weather, overcast; sea, rough; wire angle, 13°.

0	17.9	34.02	0	17.9	34.02	24.57	338	0.00
10	17.87	34.06	10	17.87	34.06	24.60	335	0.03
50	17.22	33.96	20	17.83	34.05	24.61	334	0.07
60	15.58	33.86	30	17.81	34.05	24.60	335	0.10
66	14.59	33.80	50	17.22	33.96	24.68	327	0.17
71	13.90	33.72	75	13.64	33.72	25.29	269	0.24
81	13.26	33.73	100	11.90	33.81	25.71	229	0.31
90	12.38	33.78	150	11.12	34.32	26.24	179	0.41
100	11.90	-	200	10.76	34.47	26.44	160	0.50
119	11.40	33.87	250	10.42	34.58	26.57	148	0.58
147	11.15	34.31	300	9.62	34.58	26.71	134	0.65
186	10.85	34.42	400	8.40	34.57	26.90	116	0.78
241	10.52	34.58	500	7.00	34.49	27.04	103	0.90
340	9.09	34.58	600	6.21	34.49	27.15	92	1.00
437	8.00	34.56						
535	6.60	34.47						
635	6.06	34.52						

137.23

CREST; April 9, 1954; 0707, 0720 GCT; 25°34'N, 112°19'W; sounding, 42 fm; wind, 090°, force 2; weather, clear; sea, moderate; wire angle, 00°, 00°.

0	16.30	33.87	0	16.30	33.87	24.83	313	0.00
5	16.32	33.94	10	16.29	33.94	24.89	307	0.03
10	16.29	-	20	15.78	33.91	24.98	299	0.06
			30	15.17	34.02	25.20	278	0.09
15	16.32	33.91	50	13.80	34.25	25.67	233	0.14
20	15.78	33.91						
26	15.56	33.94						
36	14.36	34.14						
46	13.84	34.22						
56	13.76	34.30						

137.40

CREST; April 9, 1954; 1708, 1735 GCT; 25°00'N, 113°23.5'W; sounding, 1868 fm; wind, 310°, force 3; weather, overcast; sea, rough; wire angle, 05°, 00°.

0	16.1	33.64	0	16.1	33.64	24.70	325	0.00
10	15.92	33.64	10	15.92	33.64	24.74	321	0.03
26	15.93	33.64	20	15.91	33.64	24.74	321	0.07
30	15.95	33.70	30	15.95	33.70	24.78	318	0.10
40	15.83	33.71	50	13.64	33.43	25.07	290	0.16
46	14.52	33.46	75	12.69	33.54	25.34	264	0.23
			100	11.92	33.90	25.77	223	0.29
52	13.38	33.43	150	11.15	34.39	26.29	174	0.39
61	12.98	33.42	200	10.66	34.54	26.50	154	0.47
102	11.82	33.93	250	10.02	34.53	26.60	145	0.55
149	11.15	34.38	300	9.44	34.52	26.69	136	0.62
198	10.68	34.54	400	8.09	34.55	26.93	113	0.76
295	9.50	34.52	500	6.80	34.47	27.05	102	0.87
393	8.20	34.55	600	6.12	34.47	27.14	93	0.98
493	6.88	34.47						
595	6.15	34.47						
647	5.82	34.54						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

137.60

CREST; April 10, 1954; 0406 GCT; 24°19.5'N, 114°39.5'W; sounding, 2020 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 13°.

0	18.6	34.17	0	18.6	34.17	24.51	343	0.00
56	18.38	34.14	10	(18.45)	(34.17)	(24.55)	(340)	(0.03)
65	16.89	33.85	20	(18.41)	(34.17)	(24.56)	(339)	(0.07)
76	15.78	33.77	30	(18.40)	(34.16)	(24.55)	(340)	(0.10)
86	14.32	33.73	50	(18.37)	(34.15)	(24.55)	(340)	(0.17)
96	13.35	33.62	75	16.00	33.77	24.82	314	(0.25)
105	12.60	33.69	100	13.00	33.63	25.35	263	(0.32)
114	11.96	33.71	150	11.26	34.19	26.12	190	(0.44)
124	11.68	33.78	200	10.34	34.31	26.37	166	(0.53)
134	11.40	34.10	250	9.72	34.31	26.48	156	(0.61)
158	11.18	34.22	300	9.18	34.31	26.57	148	(0.69)
196	10.40	34.31	400	8.03	34.46	26.87	119	(0.83)
292	9.25	34.31	500	6.90	34.42	27.00	107	(0.95)
399	8.04	34.46	600	6.10	34.47	27.14	93	(1.06)
518	6.76	34.42						
640	5.86	34.51						

140.120

SPENCER F. BAIRD; May 8, 1954; 0120, 0236 GCT; 21°45.5'N, 118°05'W; sounding, 2130 fm; wind, 360°, force 1; weather, overcast; sea, moderate; wire angle, 10°, 10°.

0	20.7	34.47	0	20.7	34.47	24.19	374	0.00
10	20.72	34.48	10	20.72	34.48	24.19	374	0.04
30	20.62	34.47	20	20.68	34.47	24.20	373	0.07
41	20.57	34.48	30	20.62	34.47	24.21	372	0.11
51	20.30	34.39	50	20.35	34.41	24.24	369	0.19
60	18.72	34.06	75	17.72	33.93	24.54	340	0.28
70	18.16	33.98	100	14.18	33.63	25.11	286	0.35
79	17.17	33.89	150	12.07	34.08	25.88	213	0.48
90	15.68	33.75	200	10.60	34.31	26.33	170	0.58
98	14.42	33.63	250	9.90	34.39	26.51	153	0.66
122	12.63	33.78	300	9.20	34.43	26.66	139	0.74
151	12.02	34.09	400	7.99	34.45	26.87	119	0.87
200	10.60	34.31	500	7.03	34.46	27.01	106	0.99
258	9.80	34.40	600	6.26	34.46	27.11	96	1.10
360	8.45	34.45	700	5.66	34.48	27.21	87	1.20
478	7.26	34.47	800	5.09	34.49	27.28	80	1.30
602	6.24	34.47	1000	4.23	34.52	27.40	69	1.46
			1200	3.61	34.55	27.49	61	1.61
510a)	6.90	34.45	1500	2.92	34.59	27.59	51	1.81
614	6.13	34.46						
714	5.57	34.48						
817	5.00	34.49						
918	4.52	34.50						
1022	4.18	34.52						
1122	3.83	34.53						
1226	3.56	34.56						
1326	3.35	34.58						
1430	3.07	34.59						
1540	2.83	34.59						

a) Overlapping casts; reconciliation of property curves when necessary.

SIO

CCOFI
5404

140.150

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm^3/g	ΔD dyn. m

SPENCER F. BAIRD; May 9, 1954; 0637, 0835 GCT; 20°41.5'N, 119°56.5'W; sounding, 2140 fm; wind, 030°, force 2; weather, drizzle; sea, moderate; wire angle, 05°, 00°.

0	21.7	34.47	0	21.7	34.47	23.92	400	0.00
15	21.80	34.44	10	21.84	34.45	23.86	406	0.04
35	20.19	34.42	20	21.17	34.43	24.03	389	0.08
45	19.91	34.24	30	20.42	34.43	24.24	369	0.12
54	19.82	34.27	50	19.87	34.25	24.24	369	0.19
64	19.58	34.23	75	19.13	34.22	24.41	353	0.28
74	19.16	34.22	100	18.51	34.16	24.52	342	0.37
84	19.08	34.27	150	12.10	33.55	25.46	253	0.52
93	18.83	34.21	200	10.85	33.87	25.94	207	0.64
103	18.36	34.13	250	9.92	34.27	26.42	162	0.73
127	15.04	33.66	300	9.05	34.34	26.61	144	0.81
157	11.52	33.54	400	8.01	34.38	26.81	125	0.95
206	10.78	34.10	500	6.83	34.37	26.97	110	1.08
267	9.52	34.30	600	6.14	34.40	27.08	99	1.19
370	8.33	34.38	700	5.57	34.44	27.18	90	1.29
492	6.98	34.38	800	5.08	34.48	27.28	80	1.39
616	6.06	34.40	1000	4.21	34.49	27.38	71	1.56
			1200	3.53	34.49	27.45	64	1.71
519a)	6.66	34.36	1500	2.82	34.57	27.58	52	1.92
624	5.99	34.42						
723	5.48	34.45						
826	4.94	34.49						
925	4.44	34.50						
1029	4.12	34.49						
1128	3.77	34.50						
1233	3.48	34.49						
1332	3.24	34.57						
1437	2.98	34.56						
1547	2.76	34.58						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T $10^{-5}T_3$ cm/g	ΔD dyn. m

SPENCER F. BAIRD; May 10, 1954; 1610, 1753 GCT; 19°50'N, 121°42'W; sounding, 2370 fm; wind, 040°, force 3; weather, overcast; sea, moderate; wire angle, 20°, 20°.

0	21.3	34.31	0	21.3	34.31	23.91	401	0.00
10	21.47	34.31	10	21.47	34.31	23.86	406	0.04
28	21.04	34.31	20	21.27	34.31	23.92	400	0.08
42	20.46	34.46	30	20.98	34.32	24.00	392	0.12
52	19.93	34.41	50	20.03	34.42	24.33	360	0.20
61	19.62	34.40	75	19.10	34.33	24.50	344	0.28
70	19.35	34.37	100	18.44	34.28	24.63	332	0.37
80	18.87	34.30	150	12.70	33.95	25.66	234	0.51
94	18.55	34.29	200	11.38	34.31	26.19	184	0.62
103	18.39	34.27	250	10.72	34.34	26.33	170	0.71
127	15.62	34.00	300	10.06	34.38	26.48	156	0.80
153	12.54	33.95	400	8.63	34.49	26.80	126	0.94
203	11.32	34.33	500	7.51	34.49	26.97	110	1.07
262	10.56	34.34	600	6.59	34.48	27.09	98	1.18
369	9.07	34.49	700	5.86	34.50	27.20	88	1.28
490	7.61	34.47	800	5.33	34.52	27.28	80	1.39
619	6.50	34.47	1000	4.35	34.56	27.42	67	1.55
			1200	3.66	34.57	27.50	60	1.69
489a)	7.62	34.51	1500	(2.97)	(34.60)	(27.59)	(51)	(1.88)
587	6.66	34.48						
681	5.96	34.49						
782	5.42	34.52						
877	4.90	34.53						
978	4.46	34.56						
1075	4.07	34.56						
1177	3.74	34.57						
1274	3.48	34.59						
1376	3.22	34.60						
1486	3.00	34.56						

a) Overlapping casts; reconciliation of property curves when necessary.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
60.55-H	IV-12	0730	37°44.5'	123°13.5'	275	300°	6	overcast	moderate	11.58	32.59
60.70-H	11	1550	37°20.0'	124°24.5'	2200	310°	6	overcast	rough	12.40	33.04
60.80-H	11	1152	36°58.0'	125°04.0'	2500	320°	6	sky obscured	rough	12.26	33.04
60.90-H	11	0815	36°44.0'	125°31.5'	2300	310°	6	cloudy	rough	12.49	33.07
63.52-H	13	1930	37°19.0'	122°36.0'	45	310°	5	cloudy	slight	11.30	32.52
67.55-H	14	0120	36°37.5'	122°27.5'	1300	310°	5	fog	moderate	12.12	32.68
70.55-H	8	1930	36°06.0'	121°57.0'	550	310°	8	partly cloudy	rough	11.83	32.98
70.60-H	8	2305	35°50.5'	122°22.0'	1500	310°	8	partly cloudy	very rough	12.76	33.07
70.70-H	9	0330	35°33.5'	123°14.0'	2100	310°	8	missing	very rough	12.60a)	32.99
70.90-H	10	1115	34°56.5'	124°32.5'	2350	310°	6	missing	very rough	12.38	32.75
73.50-H	14	1200	35°37.0'	121°18.5'	70	310°	6	fog	moderate	9.56	33.72
73.60-H	14	1637	35°19.0'	121°58.0'	1500	310°	7	cloudy	high	12.53	33.22
77.50-H	16	0500	35°04.0'	120°52.0'	70	310°	5	clear	moderate	10.65	33.55
77.65-H	14	2115	34°34.0'	121°55.0'	2150	310°	6	partly cloudy	very rough	13.33	33.30
80.51-H	15	0910	34°26.5'	120°32.5'	49	310°	2	clear	moderate	11.26	33.48
80.60-H	15	1350	34°10.0'	121°11.5'	1200	310°	2	overcast	rough	11.96	33.42
80.80-H	15	2225	33°30.0'	122°33.0'	2200	310°	2	partly cloudy	moderate	13.90	33.26

a) Alternate value, 12.77°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
83.40-H	IV-17	1015	34°14.0'	119°22.0'	19	310°	3	fog	rough	12.50	33.46
83.48-H	17	0335	33°58.5'	119°55.0'	50	310°	6	fog	moderate	12.42	33.44
83.55-H	16	2315	33°44.0'	120°24.5'	530	340°	3	overcast	rough	11.57	33.48
83.70-H	16	1650	33°24.0'	121°23.0'	2050	090°	1	overcast	rough	12.30	33.30
83.90-H	16	0640	32°33.5'	122°50.0'	2400	290°	3	partly cloudy	moderate	14.34	33.19
85.40-H	8	1130	33°57.5'	119°12.0'	400	340°	4	partly cloudy	slight	12.44	33.48
85.50-H	8	0415	33°37.0'	119°50.5'	170	330°	7	clear	rough	13.69	33.28
85.60-H	7	2125	33°17.0'	120°33.5'	650	310°	7	partly cloudy	rough	13.66	33.31
87.35-H	17	1415	33°50.5'	118°37.0'	230	090°	2	fog	moderate	13.34	33.46
87.45-H	17	1943	33°30.5'	119°19.0'	540	340°	5	overcast	moderate	13.64	33.42
87.55-H	18	0025	33°10.0'	120°00.5'	650	270°	5	overcast	moderate	13.68	33.30
87.70-H	18	0725	32°36.5'	121°01.5'	-	340°	5	overcast	rough	13.49	33.26
87.90-H	18	1630	31°53.0'	122°22.5'	2000+	340°	5	overcast	rough	14.38	33.12
90.30-H	20	0245	33°24.5'	117°53.5'	350	270°	1	overcast	moderate	14.20	33.47
90.45-H	19	1925	32°53.5'	118°52.5'	915	310°	3	overcast	moderate	13.82	33.29
90.60-H	19	1115	32°22.0'	119°52.0'	525	310°	4	overcast	rough	13.90	33.26
90.80-H	19	0130	31°43.0'	121°16.5'	2050	310°	4	overcast	rough	14.35	33.39
93.27-E	10	0410	32°56.0'	117°19.0'	50	270°	1	partly cloudy	calm	15.11	33.40
93.35-E	10	1045	32°39.5'	117°51.5'	600	260°	2	partly cloudy	slight	14.44	33.40

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
93.40-E	IV-10	1430	32°30.0'	118°12.5'	190	310°	2	partly cloudy	slight	14.14	33.40
93.45-E	10	1730	32°22.0'	118°30.0'	850	280°	3	partly cloudy	slight	14.37	33.41
93.55-E	10	1535	31°59.0'	119°14.5'	180	310°	4	partly cloudy	very rough	14.54	33.39
93.60-E	11	0500	31°48.0'	119°35.5'	1800	300°	5	partly cloudy	very rough	14.06	33.35
93.80-E	12	0230	31°02.0'	121°05.0'	2150	260°	5	partly cloudy	very rough	14.65	33.22
97.30-E	13	1700	32°15.5'	117°09.0'	30	calm		overcast	slight	13.48	33.44
97.32-E	13	1445	32°12.5'	117°15.5'	750	calm		overcast	slight	14.94	33.62
97.45-E	13	0630	31°45.0'	118°08.5'	780	290°	1	overcast	moderate	14.84	-
97.50-E	13	0415	31°35.0'	118°29.0'	2150	310°	3	overcast	moderate	14.80	33.37
97.55-E	13	0130	31°25.0'	118°50.0'	250	310°	4	overcast	rough	14.92a)	33.40
97.70-E	12	1615	30°56.0'	119°48.5'	1800	290°	4	overcast	rough	14.77	33.35
97.90-E	12	0415	30°15.0'	121°10.0'	1950	250°	5	missing	very rough	15.16	33.24
100.30-E	15	0330	31°40.5'	116°46.5'	183	180°	1	overcast	moderate	14.50	33.42
100.35-E	15	0625	31°31.0'	117°06.5'	650	180°	1	overcast	moderate	15.14	33.41
100.40-E	15	0915	31°19.5'	117°26.0'	1100	180°	1	overcast	moderate	15.10	33.40
100.45-E	15	1200	31°09.0'	117°45.0'	700	180°	1	overcast	moderate	14.92	33.42

a) Alternate value, 15.05°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
100.55-E	IV-15	2000	30°49.0'	118°22.0'	1310	180°	1	overcast	rough	14.69a)	33.13
100.60-E	15	2245	30°38.5'	118°42.0'	1200	220°	1	overcast	rough	14.19	33.18
100.80-E	16	1100	30°04.0'	120°03.5'	2010	calm		overcast	moderate	14.60	33.15
100.100-E	16	2345	29°28.0'	121°22.5'	2000	360°	1	partly cloudy	rough	16.40	33.27
103.35-E	19	2215	30°55.0'	116°45.0'	900	310°	2	overcast	moderate	15.18	-
103.45-E	20	0430	30°35.5'	117°25.0'	1200	270°	2	overcast	moderate	15.18	-
103.50-E	20	0730	30°25.5'	117°45.0'	1000	270°	2	overcast	moderate	14.92	-
103.55-E	20	1020	30°15.5'	118°05.0'	1400	270°	2	overcast	moderate	15.14	-
103.70-E	17	1910	29°44.0'	119°03.0'	1750	240°	4	overcast	rough	15.22	33.21
103.90-E	17	0620	29°07.5'	120°25.0'	2000	310°	1	cloudy	rough	15.72	33.31
107.32-E	19	0245	30°22.0'	116°11.0'	85	310°	2	overcast	rough	13.20	35.55
107.40-E	19	0625	30°07.0'	116°45.0'	400	310°	4	overcast	rough	15.36	33.21
107.45-E	19	0330	29°59.0'	117°04.5'	780	310°	5	overcast	rough	15.36	33.27
107.55-E	18	2030	29°43.5'	117°42.5'	1700	310°	4	overcast	rough	15.45b)	33.31
107.60-E	18	1700	29°32.5'	118°02.5'	1850	270°	4	cloudy	rough	15.34	33.29
107.80-E	18	0010	28°52.0'	119°20.0'	2100	020°	3	overcast	rough	15.62	33.26
110.35-H	28	1430	29°46.0'	116°00.0'	600	310°	4	partly cloudy	smooth	15.09	33.39

a) Alternate value, 14.96°C.

b) Alternate value, 14.94°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
110.45-H	IV-28	2030	29°22.5'	116°33.5'	540	310°	3	partly cloudy	moderate	15.80	33.24
110.50-H	28	2310	29°16.5'	117°00.0'	2000	310°	4	partly cloudy	moderate	16.36	33.34
110.55-H	29	0130	29°07.5'	117°25.5'	2000	310°	6	partly cloudy	moderate	16.07	33.30
110.70-H	29	0810	28°36.0'	118°18.0'	1950	310°	5	missing	moderate	16.88	33.40
110.90-H	29	1710	27°54.5'	119°27.0'	2215	310°	5	cloudy	moderate	16.00	33.24
113.30-H	30	2345	29°24.5'	115°19.0'	33	310°	4	partly cloudy	moderate	15.68	33.53
113.32^5-H	30	2235	29°19.0'	115°29.5'	60	310°	4	partly cloudy	moderate	15.88	33.43
113.37^5-H	30	1740	29°08.5'	115°51.5'	990	310°	4	cloudy	rough	15.31	33.33
113.40-H	30	1620	29°04.0'	116°01.5'	990	310°	5	cloudy	rough	15.41	33.21
113.42^5-H	30	1505	28°59.5'	116°11.0'	400	310°	5	cloudy	rough	15.58	33.24
113.45-H	30	1400	28°56.5'	116°17.5'	750	310°	5	cloudy	moderate	15.69	33.26
113.47^5-H	30	1145	28°51.5'	116°27.0'	1800	300°	5	missing	moderate	15.73	33.27
113.55-H	30	0810	28°34.0'	116°56.5'	1900	310°	5	missing	rough	16.70	33.39
113.60-H	30	0550	28°23.0'	117°17.0'	2015	310°	5	missing	rough	16.87	33.40
117.26-C	16	1200	28°55.5'	114°42.0'	44	300°	3	missing	missing	14.30	33.39
117.28-C	16	1315	28°52.0'	114°48.5'	50	310°	4	fog	moderate	14.30	33.51
117.32^5-C	16	1700	28°42.0'	115°05.0'	74	310°	3	fog	moderate	14.92	33.46
117.35-C	16	1845	28°36.5'	115°15.0'	90	320°	3	fog	moderate	14.90	33.44
117.37^5-C	16	2045	28°32.0'	115°25.5'	145	320°	4	fog	moderate	14.29	33.31

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
117.42.5-C	IV-17	0115	28°24.0'	115°46.5'	1120	340°	3	partly cloudy	rough	15.52	33.32
117.45-C	17	0230	28°19.0'	115°56.0'	2000	340°	4	fog	rough	15.88	33.36
117.47.5-C	17	0415	28°14.0'	116°06.0'	2450	330°	4	fog	rough	15.88	33.37
117.50-C	17	0605	28°08.5'	116°15.5'	2150	340°	4	fog	rough	15.90	33.42
117.55-C	17	0910	27°57.0'	116°35.0'	1900	330°	4	fog	rough	15.92	33.28
117.70-C	17	1800	27°24.5'	117°32.0'	2100	320°	4	partly cloudy	rough	17.08	33.85
120.27.5-C	16	0510	28°18.0'	114°24.0'	48	320°	4	clear	rough	15.28	33.49
120.30-C	16	0055	28°13.0'	114°34.0'	55	330°	4	clear	rough	14.14	33.53
120.32.5-C	15	0915	28°08.0'	114°44.5'	50	340°	2	clear	moderate	15.27	33.47
120.37.5-C	15	2200	27°58.5'	115°03.5'	32	350°	1	partly cloudy	slight	14.76	33.49
120.40-C	15	2015	27°58.0'	115°16.5'	-	-	-	partly cloudy	very rough	14.97	33.50
120.42.5-C	15	1830	27°47.0'	115°23.5'	150	130°	1	sky obscured	very rough	14.42	33.56
120.45-C	15	1627	27°39.0'	115°30.0'	1550	030°	2	sky obscured	rough	14.03	33.46
120.47.5-C	15	1340	27°35.0'	115°40.0'	2000	360°	2	sky obscured	rough	14.66	33.46
120.55-C	15	0805	27°22.0'	116°11.0'	2000	330°	1	missing	slight	15.66	33.31
120.60-C	15	0500	27°13.0'	116°32.0'	2000	340°	2	missing	moderate	16.23	33.30
123.37-C	14	0120	27°24.0'	114°40.0'	39	310°	4	missing	slight	12.52	33.58
123.42.5-C	14	0530	27°13.0'	115°01.0'	1150	320°	3	missing	slight	15.06	33.53
123.45-C	14	0730	27°08.0'	115°10.5'	2200	320°	2	missing	smooth	14.68	33.46

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
123.47^{5}-C	IV-14	0935	27°03.5'	115°20.0'	2000	300°	2	missing	smooth	14.83	33.35
123.50-C	14	1110	26°58.0'	115°30.5'	2000	310°	2	overcast	smooth	14.88	33.28
123.55-C	14	1352	26°48.0'	115°46.0'	1950	320°	2	overcast	moderate	15.42	33.24
127.37-C	13	0325	26°49.5'	114°17.5'	1150	320°	6	cloudy	rough	14.84	33.33
127.40-C	13	0135	26°44.5'	114°28.0'	1800	330°	5	cloudy	rough	15.12	33.48
127.42^{5}-C	12	2345	26°39.0'	114°39.5'	2000	330°	5	cloudy	rough	14.94	33.41
127.45-C	12	2210	26°34.0'	114°49.0'	1950	320°	5	cloudy	rough	14.52	-
127.47^{5}-C	12	1925	26°23.0'	115°00.0'	2100	340°	5	cloudy	rough	15.65	33.36
127.55-C	12	1400	26°13.5'	115°27.0'	2000	330°	5	cloudy	very rough	15.82	33.22
127.60-C	12	1050	26°04.0'	115°46.0'	2000	350°	6	missing	very rough	15.54	33.38
130.35-C	11	1355	26°19.0'	113°48.5'	290	330°	4	cloudy	moderate	14.92	33.32
130.45-C	11	2030	25°54.5'	114°27.5'	2000	330°	4	cloudy	rough	15.09	33.33
130.50-C	11	2315	25°48.5'	114°46.5'	1950	330°	4	partly cloudy	rough	15.36	33.33
130.55-C	12	0205	25°37.0'	115°08.0'	2050	340°	5	partly cloudy	rough	18.00	34.23
133.25-C	11	0540	26°06.0'	112°50.5'	46	300°	2	partly cloudy	moderate	14.48	33.43
133.35-C	10	2315	25°46.0'	113°27.5'	500	270°	2	partly cloudy	moderate	14.91	33.48
133.40-C	10	2015	25°35.5'	113°46.0'	2200	090°	2	overcast	rough	15.96	-
133.45-C	10	1735	25°25.0'	114°05.0'	1900	010°	3	overcast	rough	17.28	33.96
133.60-C	10	0915	24°54.0'	115°02.0'	2150	340°	4	overcast	slight	18.39	34.14

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
137.30-C	IV-9	1045	25°20.0'	112°45.5'	42	090°	2	clear	slight	16.33	33.93
137.35-C	9	1345	25°10.0'	113°04.5'	1788	300°	3	cloudy	very rough	16.65	33.82
137.45-C	9	2045	24°48.0'	113°42.5'	1880	120°	2	cloudy	moderate	17.54	34.04
137.50-C	10	0550	24°37.5'	114°02.0'	2150	040°	2	cloudy	moderate	17.24	33.96

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m
60.60	CREST; May 11, 1954; 0023 GCT; 37°37'N, 123°37'W; sounding, 1800 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 02°.							
0	12.9	32.88	0	12.9	32.88	24.79	317	0.00
10	11.74	-	10	11.74	32.98	25.09	288	0.03
25	10.06	33.18	20	10.60	33.13	25.41	258	0.06
57	9.39	33.39	30	9.90	33.22	25.60	240	0.08
66	9.00	33.47	50	9.55	33.35	25.76	224	0.13
78	9.04	33.60	75	9.03	33.57	26.02	200	0.18
93	8.85	33.69	100	8.74	33.77	26.22	181	0.23
113	8.55	33.92	150	8.00	34.01	26.52	152	0.32
138	8.10	33.99	200	7.40	34.05	26.64	141	0.39
169	7.86	-	250	6.90	34.11	26.75	130	0.46
223	7.13	34.06	300	6.61	34.18	26.85	121	0.52
303	6.60	34.18	400	6.08	34.19	26.92	114	0.65
414	6.00	34.19	500	5.53	34.26	27.05	102	0.76
560	5.24	34.31	600	5.10	34.33	27.15	92	0.86
755	4.55	34.41	700	4.73	34.38	27.24	84	0.96
996	3.78	34.52	800	4.41	34.44	27.32	76	1.05
1312	3.08	34.55	1000	3.78	34.52	27.45	64	1.20
60.80	CREST; May 11, 1954; 1104 GCT; 36°57'N, 125°04.5'W; sounding, 2200 fm; wind, 330°, force 4; weather, cloudy; sea, moderate; wire angle, 30°.							
0	13.5	32.94	0	13.5	32.94	24.72	323	0.00
10	13.43	32.91	10	13.43	32.91	24.71	324	0.03
23	13.42	32.94	20	13.42	32.93	24.73	322	0.06
45	12.91	33.03	30	13.28	32.97	24.79	317	0.10
53	12.66	32.94	50	12.70	33.01	24.93	303	0.16
62	12.64	32.89	75	10.60	33.20	25.47	252	0.23
70	11.76	33.07	100	8.99	33.56	26.01	201	0.29
86	9.50	33.42	150	8.32	33.89	26.38	166	0.38
106	8.84	33.61	200	7.70	34.01	26.56	148	0.46
131	8.55	33.81	250	6.90	34.03	26.69	136	0.53
171	8.08	33.96	300	6.29	34.04	26.78	128	0.60
231	7.20	34.03	400	5.52	34.13	26.95	111	0.72
304	6.26	34.04	500	5.07	34.22	27.07	100	0.83
423	5.40	34.15	600	4.70	34.30	27.18	90	0.94
580	4.76	34.28	700	4.40	34.37	27.26	82	1.03
781	4.19	34.42	800	4.14	34.43	27.34	74	1.11
1071	3.50	34.50	1000	3.63	34.49	27.44	65	1.27
63.55	CREST; May 9, 1954; 1758 GCT; 37°16'N, 122°50.5'W; sounding, 140 fm; wind, 140°, force 4; weather, cloudy; sea, rough; wire angle, 11°.							
0	12.08	32.94	0	12.08	32.94	25.00	297	0.00
10	11.46	32.99	10	11.46	32.99	25.15	282	0.03
15	10.56	33.19	20	10.40	33.22	25.52	247	0.06
20	10.40	33.22	30	10.10	33.30	25.63	237	0.08
25	10.25	33.26	50	9.49	33.40	25.81	220	0.13
30	10.10	33.30	75	8.90	33.65	26.10	192	0.18
35	10.03	33.32	100	8.40	33.79	26.29	174	0.22
45	9.63	33.37	150	8.11	33.96	26.46	158	0.31
56	9.30	33.43						
65	9.03	33.61						
80	8.84	33.66						
100	8.40	33.79						
121	8.28	33.86						
156	8.06	33.98						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

67.50

CREST; May 9, 1954; 1010, 1026 GCT; 36°49'N, 122°05.5'W; sounding, 60 fm; wind, 100°, force 4; weather, rain; sea, moderate; wire angle, 02°, 02°.

0	12.48	32.85	0	12.48	32.85	24.85	311	0.00
10	12.38	32.91	10	12.38	32.91	24.92	304	0.03
15	10.52	33.33	20	10.14	33.44	25.73	227	0.06
20	10.14	33.44	30	9.24	33.53	25.95	206	0.08
25	9.33	33.56	50	8.90	33.67	26.11	191	0.12
30	9.24	33.53	75	(8.72)	(33.78)	(26.23)	(180)	(0.17)
36	9.08	33.57						
46	8.92	33.63						
56	8.86	33.74						
72	8.73	33.78						

70.51

CREST; May 13, 1954; 0836 GCT; 36°10.5'N, 121°46'W; sounding, 200 fm; wind, 120°, force 1; weather, clear; sea, rough; wire angle, 02°.

0	10.27	33.56	0	10.27	33.56	25.80	221	0.00
10	9.87	33.62	10	9.87	33.62	25.92	209	0.02
15	9.23	33.78	20	9.14	33.77	26.15	187	0.04
20	9.14	33.77	30	9.00	33.84	26.23	180	0.06
25	9.04	33.82	50	8.89	33.86	26.26	177	0.10
30	9.00	33.84	75	8.73	33.89	26.31	172	0.14
35	8.96	33.81	100	8.58	33.94	26.38	166	0.18
46	8.90	33.85	150	8.22	33.98	26.46	158	0.26
55	8.85	33.86	200	7.89	34.07	26.58	146	0.34
71	8.76	33.88	250	7.52	34.13	26.68	137	0.41
87	8.64	33.92						
107	8.54	33.94						
136	8.39	33.95						
171	8.00	34.03						
207	7.86	34.08						
258	7.43	34.14						

70.60

CREST; May 13, 1954; 0105, 0135 GCT; 35°51.5'N, 122°26'W; sounding, 1700 fm; wind, 320°, force 6; weather, cloudy; sea, high; wire angle, 38°, 38°.

0	11.85	33.00	0	11.85	33.00	25.09	288	0.00
9	11.89	-	10	11.89	33.02	25.09	288	0.03
17	11.89	-	20	11.90	33.05	25.12	285	0.06
25	11.91	33.06	30	11.88	33.07	25.13	284	0.09
			50	10.01	33.10	25.49	250	0.14
60	9.90	33.41	75	9.21	33.68	26.07	195	0.20
70	9.36	-	100	8.71	33.69	26.16	186	0.24
89	8.93	33.74	150	8.13	33.90	26.41	163	0.33
101	8.70	33.69	200	7.54	34.02	26.59	146	0.41
133	8.32	33.86	250	7.00	34.09	26.72	133	0.48
175	7.85	33.96	300	6.55	34.09	26.78	128	0.55
233	7.16	34.08	400	6.08	34.15	26.89	117	0.68
312	6.46	34.09	500	5.59	34.19	26.99	108	0.79
421	5.97	34.16	600	(5.19)	(34.22)	(27.06)	(101)	(0.91)
591	5.22	34.22	700	(4.89)				
885	4.42	-	800	(4.61)				

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

70.80 CREST; May 12, 1954; 1041, 1123 GCT; 35°13'N, 123°48'W; sounding, 2000 fm; wind, 350°, force 7; weather, cloudy; sea, high; wire angle, 28°, 28°.

0	13.4	32.87	0	13.4	32.87	24.69	326	0.00
10	13.35	32.77	10	13.35	32.77	24.62	333	0.03
28	13.36	32.85	20	13.37	32.82	24.65	330	0.07
49	12.68	-	30	13.30	32.85	24.69	326	0.10
62	12.48	32.87	50	12.64	32.87	24.84	312	0.16
85	11.12	32.88	75	11.81	32.87	24.99	298	0.24
92	10.35	33.04	100	9.80	33.09	25.52	247	0.31
100	9.80	33.09	150	8.51	33.64	26.15	187	0.42
126	8.68	33.40	200	7.89	33.88	26.43	161	0.51
146	8.54	33.62	250	7.54	34.03	26.60	145	0.58
195	7.92	33.86	300	6.97	34.03	26.68	137	0.66
			400	5.91	34.03	26.82	124	0.79
258	7.50	34.04	500	5.37	34.13	26.96	110	0.92
351	6.28	34.00	600	4.80	34.24	27.12	95	1.02
475	5.49	34.11	700	4.44	34.33	27.23	85	1.12
646	4.59	34.28	800	4.18	34.39	27.30	78	1.21
856	4.02	34.42	1000	3.71	34.49	27.43	66	1.37
1155	3.42	34.54						

73.60 CREST; May 13, 1954; 1828 GCT; 35°18'N, 121°58'W; sounding, 1350 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 20°.

0	13.18	33.34r	0	13.18	(33.01)	(24.84)	(312)	(0.00)
10	13.12	33.02	10	13.12	33.02	24.86	310	0.03
31	13.00	33.02	20	13.08	33.02	24.87	309	0.06
45	12.99	33.06	30	13.00	33.02	24.88	308	0.09
58	10.64	33.26	50	12.00	33.13	25.16	281	0.15
68	10.18	33.28	75	9.80	33.34	25.71	229	0.22
77	9.74	33.36	100	9.00	33.63	26.07	195	0.27
92	9.09	33.58	150	8.60	33.97	26.40	164	0.36
101	9.00	33.64	200	7.97	34.06	26.56	148	0.44
115	8.94	33.79	250	7.40	34.12	26.69	136	0.51
143	8.70	33.94	300	6.98	34.15	26.77	128	0.58
171	8.35	34.02	400	6.08	34.07	26.83	123	0.71
228	7.67	34.09	500	5.54	34.19	26.99	108	0.83
293	7.03	34.15	600	5.03	34.31	27.15	92	0.94
408	6.04	34.07						
540	5.38	34.25						
677	4.82	34.39						

77.55 CREST; May 14, 1954; 0502 GCT; 34°55'N, 121°14'W; sounding, 305 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

0	12.81	32.97	0	12.81	32.97	24.88	308	0.00
10	12.82	33.12u	10	12.82	32.97	24.88	308	0.03
30	12.67	32.97	20	12.74	32.97	24.89	307	0.06
41	12.34	32.97	30	12.67	32.97	24.91	305	0.09
51	11.48	33.28	50	11.53	33.25	25.34	264	0.15
62	10.34	33.34	75	9.80	33.41	25.77	223	0.21
72	10.00	33.37	100	9.24	33.56	25.97	204	0.26
82	9.50	33.49	150	8.37	33.95	26.42	162	0.36
92	9.30	33.52	200	7.92	34.03	26.55	149	0.44
102	9.23	33.57	250	7.41	34.10	26.67	138	0.51
122	8.76	33.71	300	6.99	34.16	26.78	128	0.58
146	8.40	33.93	400	6.32	34.25	26.94	112	0.70
168	8.26	34.00	500	5.78	34.30	27.05	102	0.82
207	7.87	34.04						
392	6.38	34.25						
514	5.71	34.30						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; May 14, 1954; 1536 GCT; 34°19'N, 120°48'W; sounding, 427 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 02°. 80.55

0	12.23	33.60	0	12.23	33.60	25.48	251	0.00
10	12.00	33.75u	10	12.00	33.60	25.52	247	0.02
20	11.38	33.51	20	11.38	33.51	25.57	242	0.05
30	11.29	33.60	30	11.29	33.60	25.65	235	0.07
42	10.21	33.57	50	9.80	33.74	26.02	200	0.12
52	9.73	33.75	75	9.57	33.82	26.12	190	0.17
63	9.64	33.79	100	9.38	33.84	26.17	185	0.21
73	9.58	33.82	150	9.18	34.00	26.33	170	0.30
103	9.36	33.84	200	8.31	34.13	26.57	148	0.38
128	9.31	33.89	250	7.86	34.16	26.66	139	0.46
157	9.08	34.03	300	7.61	34.19	26.72	133	0.53
206	8.26	34.14	400	7.05	34.23	26.83	123	0.66
266	7.76	34.17	500	6.02	34.25	26.98	109	0.78
372	7.32	34.22	600	5.59	34.32	27.09	98	0.90
492	6.06	34.25						
619	5.52	34.35						

CREST; May 14, 1954; 2335 GCT; 33°48.5'N, 121°50.5'W; sounding, 1900 fm; wind, 290°, force 1; weather, cloudy; sea, moderate; wire angle, 18°. 80.70

0	13.4	33.09	0	13.4	33.09	24.86	310	0.00
10	13.35	33.06	10	13.35	33.06	24.84	312	0.03
25	13.20	33.08	20	13.27	33.07	24.87	309	0.06
40	12.52	33.09	30	12.99	33.08	24.93	303	0.09
49	11.85	33.18	50	11.80	33.19	25.24	274	0.15
59	11.22	33.23	75	10.51	33.43	25.66	234	0.22
78	10.40	33.46	100	9.72	33.63	25.95	206	0.27
97	9.82	33.60	150	8.95	34.05	26.40	164	0.36
121	9.12	33.86	200	8.29	34.10	26.54	150	0.44
148	8.97	34.04	250	7.70	34.18	26.70	135	0.52
194	8.38	34.09	300	7.04	34.18	26.79	127	0.58
260	7.58	34.19	400	6.19	34.19	26.91	115	0.71
359	6.38	34.15	500	5.79	34.28	27.03	104	0.83
481	5.86	34.27	600	5.38	34.34	27.13	94	0.93
656	5.11	34.37						

CREST; May 15, 1954; 0900, 0925 GCT; 33°12.5'N, 123°06'W; sounding, 2300 fm; wind, 280°, force 3; weather, cloudy; sea, moderate; wire angle, 04°, 04°. 80.90

0	14.9	33.19	0	14.9	33.19	24.62	333	0.00
10	14.89	33.19	10	14.89	33.19	24.62	333	0.03
25	14.81	33.22	20	14.88	33.21	24.64	331	0.07
50	14.24	33.24	30	14.72	33.23	24.69	326	0.10
60	13.42	33.19	50	14.24	33.24	24.80	316	0.16
			75	12.40	33.19	25.13	284	0.24
70	12.84	33.19	100	10.19	33.32	25.63	237	0.30
80	11.96	33.19	150	8.84	33.69	26.14	188	0.41
101	10.17	33.33	200	8.29	33.92	26.40	164	0.50
126	9.40	33.53	250	7.54	33.99	26.57	148	0.58
156	8.76	33.73	300	7.00	34.06	26.70	135	0.65
207	8.20	33.93	400	6.21	34.22	26.93	113	0.78
277	7.23	34.02	500	5.58	34.25	27.03	104	0.90
382	6.36	34.21	600	5.08	34.28	27.12	95	1.00
513	5.48	34.25	700	4.68	34.32	27.19	89	1.10
700	4.68	34.32	800	4.33	(34.36)	(27.26)	(82)	(1.20)
927	3.97	-	1000	3.78	(34.45)	(27.39)	(70)	(1.36)
1233	3.25	34.53						

82.47

CREST; May 16, 1954; 1719, 1735 GCT; 34°16.5'N, 119°58'W; sounding, 250 fm; wind, 080°, force 1; weather, partly cloudy; sea, slight; wire angle, 04°, 04°.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m
0	14.25	33.66	0	14.25	33.66	25.12	285	0.00
10	11.65	33.68	10	11.65	33.68	25.65	235	0.03
15	11.25	33.58	20	11.06	33.62	25.71	229	0.05
20	11.06	33.62	30	10.68	33.71	25.85	216	0.07
25	10.93	33.65	50	9.63	33.82	26.11	191	0.11
30	10.68	33.71	75	9.54	33.91	26.20	183	0.16
			100	9.28	34.04	26.34	169	0.20
40	9.35	33.66	150	9.08	34.08	26.41	163	0.29
50	9.63	33.82	200	8.50	34.15	26.55	149	0.37
65	9.56	33.88	250	8.10	34.18	26.64	141	0.44
80	9.51	33.93	300	7.60	34.20	26.73	132	0.51
100	9.28	34.04	400	6.68	34.24	26.89	117	0.64
126	9.22	34.02						
166	8.92	34.14						
205	8.46	34.30u						
256	8.08	34.18						
331	7.30	34.21						
413	6.57	34.24						

83.43

CREST; May 16, 1954; 2108 GCT; 34°08'N, 119°33.5'W; sounding, 127 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 05°.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m
0	14.82	33.57	0	14.82	33.57	24.93	303	0.00
10	13.68	33.58	10	13.68	33.58	25.18	280	0.03
15	12.99	33.60	20	12.81	33.55	25.33	265	0.06
20	12.81	33.55	30	12.15	33.56	25.46	253	0.08
25	12.51	33.56	50	11.00	33.70	25.78	222	0.13
30	12.15	33.56	75	9.56	33.78	26.09	193	0.18
35	11.88	33.58	100	9.14	33.95	26.29	174	0.23
45	11.51	33.75	150	8.78	34.12	26.48	156	0.31
55	10.28	33.60	200	8.30	34.13	26.57	148	0.39
66	9.67	33.66						
77	9.53	33.80						
110	9.05	33.96						
139	8.81	34.10						
168	8.71	-						
202	8.27	34.13						

83.51

CREST; May 16, 1954; 1206 GCT; 33°52'N, 120°07'W; sounding, 80 fm; wind, 320°, force 6; weather, partly cloudy; sea, moderate; wire angle, 07°.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m
0	12.70	33.61	0	12.70	33.61	25.40	259	0.00
5	12.64	33.54	10	12.61	33.55	25.37	262	0.03
10	12.61	33.55	20	11.63	33.55	25.55	244	0.05
15	12.54	-	30	10.60	33.58	25.76	224	0.08
20	11.63	-	50	9.49	33.77	26.10	192	0.12
25	11.02	33.55						
35	10.24	33.62						
45	9.71	-						
51	9.43	33.79						
56	9.18	33.87						
71	9.07	34.06						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; May 16, 1954; 0608 GCT; 33°34'N, 120°49'W; sounding, 800 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 22°. 83.60

0	13.52	33.33	0	13.52	33.33	25.02	295	0.00
10	13.43	33.35	10	13.43	33.35	25.05	292	0.03
20	13.07	33.40	20	13.07	33.40	25.16	281	0.06
30	12.67	33.44	30	12.67	33.44	25.27	271	0.09
44	10.68	33.41	50	10.60	33.45	25.66	234	0.14
63	10.00	33.54	75	9.71	33.58	25.91	210	0.19
72	9.75	33.51	100	9.08	33.77	26.16	186	0.24
80	9.64	33.67	150	8.30	33.86	26.36	167	0.33
93	8.96	33.59	200	7.73	34.16	26.68	137	0.41
102	9.07	33.82	250	7.39	34.20	26.76	129	0.48
124	8.77	33.87	300	7.10	34.19	26.79	127	0.54
149	8.31	33.86	400	6.51	34.22	26.89	117	0.67
188	7.82	34.14	500	5.89	34.32	27.05	102	0.79
254	7.36	34.20	600	5.37	34.41	27.19	89	0.89
362	6.76	34.18						
487	5.96	34.31						
622	5.27	34.43						

CREST; May 15, 1954; 1907 GCT; 32°49.5'N, 122°08'W; sounding, 2330 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 03°. 83.80

0	14.5	33.21	0	14.5	33.21	24.72	323	0.00
10	14.26	33.24	10	14.26	33.24	24.79	317	0.03
31	14.21	33.21	20	14.21	33.23	24.80	316	0.06
41	14.06	33.22	30	14.21	33.21	24.78	318	0.10
51	13.13	33.26	50	13.20	33.25	25.02	295	0.16
62	11.84	33.35	75	10.80	33.39	25.58	242	0.22
72	11.06	33.37	100	9.49	33.48	25.87	214	0.28
82	10.44	33.43	150	8.59	33.86	26.31	172	0.38
93	9.96	33.44	200	8.00	33.97	26.49	155	0.46
102	9.42	33.49	250	7.45	34.04	26.62	143	0.54
127	8.85	33.71	300	6.99	34.08	26.72	133	0.61
157	8.53	33.88	400	6.13	34.15	26.89	117	0.74
206	7.92	33.98	500	5.55	34.21	27.01	106	0.86
265	7.31	34.05	600	5.16	34.31	27.13	94	0.96
371	6.34	34.14						
493	5.58	34.20						
621	5.08	34.34						

CREST; May 17, 1954; 0134, 0144 GCT; 34°00'N, 119°03'W; sounding, 55 fm; wind, 270°, force 1; weather, clear; sea, slight; wire angle, 04°, missing. 85.39

0	15.30	33.44	0	15.30	33.44	24.73	322	0.00
10	13.74	33.44	10	13.74	33.44	25.06	291	0.03
15	12.56	33.46	20	12.08	33.48	25.41	258	0.06
20	12.08	33.48	30	11.16	33.46	25.57	242	0.08
25	11.50	33.46	50	10.00	33.54	25.83	218	0.13
30	11.16	33.46	75	9.70	33.81	26.09	193	0.18
32	11.08	33.44						
42	10.50	33.44						
52	9.88	33.56						
62	9.46	33.63						
76	9.79	33.82						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

85.45 CREST; May 17, 1954; 0609 GCT; 33°46'N, 119°32.5'W; sounding, 1000 fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 06°.

0	14.47	33.46	0	14.47	33.46	24.92	304	0.00
10	14.33	33.47	10	14.33	33.47	24.96	300	0.03
15	14.08	33.48	20	13.64	33.46	25.09	288	0.06
25	13.20	33.44	30	12.92	33.46	25.24	274	0.09
30	12.92	33.46	50	10.10	33.57	25.84	217	0.14
40	11.86	33.48	75	9.11	33.83	26.21	182	0.19
50	10.10	33.57	100	8.90	33.93	26.32	171	0.23
60	9.45	33.67	150	8.62	34.08	26.48	156	0.32
91	8.96	33.95	200	8.36	34.14	26.57	148	0.39
101	8.89	33.93	250	8.00	34.20	26.67	138	0.47
126	8.73	34.02	300	7.59	34.24	26.76	129	0.54
156	8.58	34.09						
205	8.32	34.15						
263	7.90	34.21						
366	7.11	34.27						

85.55 CREST; May 17, 1954; 1205 GCT; 33°26.5'N, 120°13.5'W; sounding, 650 fm; wind, 320°, force 6; weather, cloudy; sea, high; wire angle, 23°.

0	12.94	33.50	0	12.94	33.50	25.26	272	0.00
10	12.85	33.49	10	12.85	33.49	25.27	271	0.03
20	12.26	33.40	20	12.26	33.40	25.32	266	0.05
29	12.14	33.37	30	12.10	33.37	25.33	265	0.08
44	11.56	33.44						

87.40 CREST; May 18, 1954; 0625 GCT; 33°40.5'N, 118°59'W; sounding, 470 fm; wind, calm; weather, fog; sea, calm; wire angle, 00°.

0	14.53	33.40	0	14.53	33.40	24.86	310	0.00
10	12.55	33.37	10	12.55	33.37	25.24	274	0.03
20	11.74	33.53	20	11.74	33.53	25.52	247	0.06
31	11.00	33.48	30	11.05	33.48	25.60	240	0.08
41	10.23	33.65	50	9.96	33.75	26.00	202	0.12
52	9.92	33.77	75	9.67	33.95	26.21	182	0.17
62	9.80	33.86	100	9.48	33.99	26.27	176	0.22
73	9.68	33.94	150	8.71	34.08	26.46	158	0.30
92	9.48	33.99	200	8.16	34.18	26.63	142	0.38
103	9.48	33.99						
128	9.26	34.11						
157	8.58	34.07						
206	8.12	34.19						

87.50 CREST; May 18, 1954; 1156 GCT; 33°20'N, 119°39.5'W; sounding, 40 fm; wind, 260°, force 1; weather, fog; sea, slight; wire angle, 00°.

0	14.33	33.27	0	14.33	33.27	24.80	316	0.00
10	14.24	33.27	10	14.24	33.27	24.82	314	0.03
15	14.01	33.19	20	13.15	33.17	24.97	300	0.06
20	13.15	33.17	30	12.46	33.22	25.14	283	0.09
25	12.67	33.20	50	10.98	33.34	25.51	248	0.14
30	12.46	33.22						
35	12.59	33.31						
41	12.38	33.31						
51	10.86	33.35						
62	10.46	33.45						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

87.60

CREST; May 18, 1954; 1804 GCT; 33°00'N, 120°21.5'W; sounding, 350 fm; wind, 010°, force 3; weather, cloudy; sea, moderate; wire angle, 07°.

0	14.20	33.35	0	14.20	33.35	24.89	307	0.00
10	14.08	33.32	10	14.08	33.32	24.89	307	0.03
30	12.82	33.38	20	14.05	33.35	24.92	304	0.06
40	11.29	33.45	30	12.82	33.38	25.19	279	0.09
50	10.02	33.57	50	10.02	33.57	25.85	216	0.14
60	9.48	33.67	75	9.04	33.72	26.13	189	0.19
70	9.10	33.69	100	8.73	33.90	26.32	171	0.24
80	9.00	33.77	150	8.46	34.04	26.47	157	0.32
90	8.96	33.86	200	7.75	34.06	26.59	146	0.40
101	8.73	33.90	250	7.29	34.12	26.71	134	0.47
120	8.60	34.00	300	6.88	34.17	26.80	126	0.54
146	8.50	34.03	400	6.03	34.24	26.97	110	0.66
165	8.18	34.07	500	5.55	34.29	27.07	100	0.77
206	7.68	34.06						
286	7.00	34.16						
391	6.10	34.24						
513	5.50	34.29						

87.80

CREST; May 19, 1954; 0406 GCT; 32°19.5'N, 121°46.5'W; sounding, 2000 fm; wind, 340°, force 4; weather, clear; sea, rough; wire angle, 13°.

0	15.32	33.16	0	15.32	33.16	24.51	343	0.00
10	15.28	33.20	10	15.28	33.20	24.55	340	0.03
21	15.26	33.18	20	15.27	33.18	24.53	341	0.07
31	14.93	33.20	30	15.03	33.20	24.60	335	0.10
46	14.32	33.17	50	14.29	33.15	24.72	323	0.17
56	13.77	33.12	75	12.05	33.05	25.09	288	0.24
66	12.76	33.02	100	10.12	33.19	25.54	245	0.31
75	12.05	33.05	150	8.82	33.71	26.16	186	0.42
85	11.28	33.09	200	8.02	33.99	26.50	154	0.51
100	10.12	33.19	250	7.39	34.04	26.63	142	0.58
108	10.03	33.28	300	6.97	34.08	26.72	133	0.66
161	8.64	33.80	400	6.33	(34.21)	(26.91)	(115)	(0.78)
214	7.84	34.03	500	5.87	(34.32)	(27.05)	(102)	(0.90)
277	7.14	34.05	600	5.38	(34.39)	(27.17)	(91)	(1.00)
388	6.40	34.20						
515	5.78	-						
650	5.14	34.42						

90.28

CREST; May 21, 1954; 1100 GCT; 33°28.5'N, 117°47'W; sounding, 75 fm; wind, 150°, force 3; weather, cloudy; sea, slight; wire angle, 04°.

0	16.60	33.51	0	16.60	33.51	24.49	345	0.00
10	14.18	33.54	10	14.18	33.54	25.04	293	0.03
15	13.74	33.56	20	12.60	33.47	25.31	267	0.06
20	12.60	33.47	30	11.23	33.62	25.68	232	0.08
25	12.15	33.58	50	10.41	33.73	25.91	210	0.13
30	11.23	33.62						
35	10.96	33.64						
40	10.72	33.67						
50	10.41	33.73						
60	10.04	33.83						

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5405

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
90.37	CREST; May 20, 1954; 1927 GCT; 33°11'N, 118°23.5'W; sounding, 650 fm; wind, 260°, force 1; weather, cloudy; sea, slight; wire angle, 01°.							
0	15.86	33.44	0	15.86	33.44	24.60	335	0.00
10	14.56	33.37	10	14.56	33.37	24.83	313	0.03
30	12.44	33.38	20	13.80	33.37	24.99	298	0.06
40	11.61	33.41	30	12.44	33.38	25.27	271	0.09
50	11.24	33.48	50	11.24	33.48	25.57	242	0.14
61	10.78	33.48	75	9.81	33.53	25.86	215	0.20
70	9.97	33.49	100	9.37	33.97	26.27	176	0.25
81	9.65	33.60	150	9.36	34.14	26.41	163	0.34
90	9.38	33.68	200	8.73	34.22	26.57	148	0.42
101	9.38	33.97	250	8.12	34.22	26.66	139	0.49
126	9.46	34.02	300	7.62	34.23	26.75	130	0.56
156	9.27	34.16	400	6.72	34.28	26.91	115	0.69
207	8.65	34.22	500	5.98	34.34	27.06	101	0.80
266	7.96	34.22	600	5.53	34.36	27.13	94	0.90
372	6.98	34.26						
494	5.99	34.34						
623	5.45	34.36						
90.55	CREST; May 20, 1954; 0856 GCT; 32°35'N, 119°36.5'W; sounding, 460 fm; wind, 310°, force 4; weather, cloudy; sea, moderate; wire angle, 07°.							
0	14.78	33.26	0	14.78	33.26	24.70	325	0.00
10	14.75	33.31	10	14.75	33.31	24.74	321	0.03
15	14.61	33.22	20	14.52	33.17	24.69	326	0.06
20	14.52	33.17	30	14.40	33.29	24.80	316	0.10
25	14.46	33.27	50	13.31	33.26	25.00	297	0.16
30	14.40	33.29	75	11.42	33.31	25.41	258	0.23
35	14.29	33.24	100	9.81	33.55	25.87	214	0.29
45	13.58	33.26	150	9.11	33.77	26.16	186	0.39
55	12.53	33.26	200	8.39	34.02	26.47	157	0.48
65	11.88	33.27						
75	11.42	33.31						
96	9.97	33.51						
111	9.42	33.62						
142	9.20	33.73						
172	8.64	33.91						
207	8.33	34.04						
90.70	CREST; May 20, 1954; 0000 GCT; 32°04.5'N, 120°39'W; sounding, 2050 fm; wind, 350°, force 4; weather, cloudy; sea, moderate; wire angle, 28°.							
0	14.88	33.26	0	14.88	33.26	24.68	327	0.00
10	14.82	33.24	10	14.82	33.24	24.68	327	0.03
24	14.80	33.22	20	14.80	33.22	24.66	329	0.07
50	14.21	33.22	30	14.78	33.22	24.67	328	0.10
59	13.70	-	50	14.21	33.22	24.79	317	0.16
69	12.59	33.28	75	12.10	33.28	25.26	272	0.24
82	11.58	33.28	100	10.39	33.40	25.66	234	0.30
99	10.42	-	150	8.90	33.72	26.15	187	0.41
122	9.64	-	200	8.33	(33.99)	(26.45)	(159)	(0.50)
147	8.94	33.71	250	7.82	(34.07)	(26.59)	(146)	(0.57)
195	8.36	33.98	300	7.21	(34.15)	(26.74)	(131)	(0.64)
265	7.65	-	400	6.56	(34.26)	(26.92)	(114)	(0.77)
361	6.78	-	500	5.99	34.35	27.06	101	(0.89)
489	6.02	34.34	600	5.43	34.42	27.19	89	(0.99)
664	5.14	34.46	700	5.00	34.46	27.27	81	(1.08)
885	4.32	34.45	800	4.60	34.45	27.31	77	(1.17)
1186	3.55	34.52	1000	4.00	34.48	27.39	70	(1.33)

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; May 19, 1954; 1351 GCT; 31°26'N, 121°58.5'W; sounding, 2000 fm; wind, 350°, force 5; weather, partly cloudy; sea, rough; wire angle, 27°. 90.90

0	15.82	33.22	0	15.82	33.22	24.44	350	0.00
10	15.78	33.21	10	15.78	33.21	24.44	350	0.04
24	15.76	33.20	20	15.76	33.20	24.44	350	0.07
33	15.22	33.22	30	15.60	33.21	24.48	346	0.10
42	14.58	33.20	50	14.50	33.27	24.77	319	0.17
51	14.49	33.28	75	12.83	33.24	25.08	289	0.25
61	14.13	33.26	100	10.99	33.22	25.41	258	0.32
101	10.98	33.22	150	9.03	33.66	26.09	193	0.43
122	9.66	33.46	200	8.15	34.00	26.49	155	0.52
149	9.05	33.66	250	7.54	34.08	26.64	141	0.60
197	8.18	34.00	300	6.98	34.11	26.74	131	0.66
267	7.31	34.09	400	6.04	34.17	26.91	115	0.79
363	6.36	34.14	500	5.48	34.25	27.05	102	0.91
491	5.50	34.25	600	5.10	34.32	27.15	92	1.01
665	4.90	34.36	700	4.80	34.38	27.23	85	1.11
887	4.16	34.47	800	4.48	34.43	27.30	78	1.20
1187	3.46	34.58	1000	3.87	34.52	27.44	65	1.36

CREST; May 21, 1954; 1752 GCT; 32°49.5'N, 117°31.5'W; sounding, 450 fm; wind, 190°, force 3; weather, cloudy; sea, moderate; wire angle, 15°. 93.30

0	16.13	33.47	0	16.13	33.47	24.56	339	0.00
10	15.58	33.40	10	15.58	33.40	24.63	332	0.03
15	15.20	33.40	20	15.02	33.41	24.76	320	0.07
20	15.02	33.41	30	14.12	33.33	24.89	307	0.10
30	14.12	33.33	50	11.04	33.35	25.51	248	0.15
40	12.52	33.40	75	9.40	33.55	25.94	207	0.21
50	11.04	33.35	100	9.62	33.82	26.12	190	0.26
65	10.08	33.33	150	8.80	34.06	26.43	161	0.35
79	9.32	33.64	200	8.66	34.27	26.62	143	0.43
99	9.64	33.81	250	8.61	34.33	26.68	137	0.50
123	9.06	33.98	300	8.34	34.35	26.73	132	0.57
152	8.80	34.06	400	7.21	34.34	26.89	117	0.70
200	8.66	34.27	500	6.42	34.34	27.00	107	0.82
257	8.60	34.23u	600	(5.79)	(34.38)	(27.11)	(96)	(0.93)
358	7.86	34.34						
474	6.58	34.34						
599	5.80	34.38						

CREST; May 22, 1954; 0530 GCT; 32°09.5'N, 118°53'W; sounding, 770 fm; wind, 330°, force 4; weather, cloudy; sea, very rough; wire angle, 20°. 93.50

0	14.40	33.30	0	14.40	33.30	24.81	315	0.00
10	14.34	33.31	10	14.34	33.31	24.83	313	0.03
20	14.33	33.31	20	14.33	33.31	24.83	313	0.06
30	13.34	33.38	30	13.34	33.38	25.09	288	0.09
44	12.30	33.30	50	11.87	33.31	25.32	266	0.15
58	11.32	33.34	75	10.11	33.44	25.74	226	0.21
67	10.58	33.39	100	9.29	33.63	26.02	200	0.26
78	10.00	33.46	150	8.74	34.02	26.41	163	0.36
91	9.58	33.53	200	8.45	34.18	26.58	146	0.43
114	9.00	33.77	250	7.82	34.23	26.72	133	0.51
142	8.78	33.98	300	7.39	34.22	26.77	128	0.57
170	8.72	34.10	400	6.68	34.28	26.92	114	0.70
225	8.10	34.23	500	6.03	34.34	27.05	102	0.82
281	7.54	34.22	600	5.49	34.39	27.16	92	0.92
405	6.65	34.28						
537	5.81	34.36						
674	5.06	34.42						

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5405

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

93.70

CREST; May 22, 1954; 1610 GCT; 31°28'N, 120°17'W; sounding, 2000 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 20°.

0	14.58	33.33	0	14.58	33.33	24.80	316	0.00
10	14.52	33.30	10	14.52	33.30	24.79	317	0.03
30	14.52	33.31	20	14.52	33.31	24.79	317	0.06
44	13.48	33.28	30	14.52	33.31	24.79	317	0.10
49	13.04	33.28	50	13.00	33.28	25.08	289	0.16
58	12.26	33.28	75	10.66	33.43	25.63	237	0.22
68	11.24	33.35	100	9.67	33.48	25.84	217	0.28
79	10.38	33.44	150	8.78	33.99	26.38	166	0.38
92	9.79	33.44	200	8.42	34.08	26.51	153	0.46
115	9.52	33.63	250	7.90	34.15	26.64	141	0.53
144	8.88	33.99	300	7.40	34.19	26.75	130	0.60
171	8.62	34.01	400	6.71	34.26	26.90	116	0.73
226	8.19	34.13	500	5.99	34.33	27.05	102	0.85
293	7.45	34.18	600	5.49	34.36	27.13	94	0.95
393	6.78	34.26						
522	5.84	34.34						
653	5.28	34.38						

93.90

CREST; May 23, 1954; 0145 GCT; 30°50'N, 121°35'W; sounding, 2250 fm; wind, 320°. force 4; weather, cloudy; sea, very rough; wire angle, 22°.

0	16.12	33.26	0	16.12	33.26	24.40	354	0.00
11	16.06	33.27	10	16.08	33.27	24.42	352	0.04
30	16.01	33.26	20	16.02	33.27	24.43	351	0.07
44	15.88	33.22	30	16.01	33.26	24.43	351	0.11
52	15.39	33.20	50	15.59	33.21	24.48	346	0.18
63	14.68	33.12	75	13.43	33.11	24.87	309	0.26
71	13.86	33.11	100	11.40	33.14	25.28	270	0.33
81	12.92	33.12	150	9.00	33.61	26.05	197	0.45
95	11.81	33.13	200	8.39	33.84	26.33	170	0.54
104	11.10	33.16	250	7.84	34.04	26.56	148	0.62
127	9.59	33.37	300	7.53	34.15	26.70	135	0.70
156	8.92	33.68	400	6.91	34.23	26.85	121	0.83
207	8.34	33.86	500	6.09	34.27	26.99	108	0.95
267	7.72	34.10	600	5.59	34.32	27.09	98	1.06
374	7.10	34.22						
497	6.11	34.27						
628	5.46	34.33						

97.40

CREST; May 24, 1954; 1003 GCT; 31°55.5'N, 117°49.5'W; sounding, 600 fm; wind, 290°, force 3; weather, cloudy; sea, moderate; wire angle, 08°.

0	16.12	33.35	0	16.12	33.35	24.47	347	0.00
10	16.09	33.36	10	16.09	33.36	24.49	345	0.04
20	15.50	33.29	20	15.50	33.29	24.57	338	0.07
30	14.38	33.28	30	14.38	33.28	24.80	316	0.10
40	13.58	33.22	50	12.16	33.17	25.16	281	0.16
50	12.16	33.17	75	10.38	33.38	25.64	236	0.23
60	11.43	33.28	100	10.13	33.66	25.90	211	0.28
70	10.34	33.33	150	8.80	33.81	26.24	179	0.38
80	10.38	33.42	200	8.73	34.14	26.51	153	0.47
90	10.28	33.48	250	7.98	34.12	26.61	144	0.54
100	10.13	33.66	300	7.58	34.17	26.70	135	0.61
126	9.65	33.72	400	7.00	34.31	26.90	116	0.74
204	8.72	34.14	500	6.18	34.34	27.03	104	0.86
263	7.80	34.12	600	5.59	34.37	27.13	94	0.97
368	7.28	34.29						
488	6.27	34.34						
615	5.49	34.38						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

97.60

CREST; May 23, 1954; 2135 GCT; 31°13'N, 119°09'W; sounding, 2000 fm; wind, 330° force 3; weather, cloudy; sea, rough; wire angle, 19°.

0	16.19	33.38	0	16.19	33.38	24.48	346	0.00
10	16.03	33.38	10	16.03	33.38	24.52	342	0.03
20	15.98	33.39	20	15.98	33.39	24.54	340	0.07
30	15.05	33.35	30	15.05	33.35	24.71	324	0.10
40	14.48	33.30	50	13.30	33.32	25.05	292	0.16
49	13.48	33.32	75	10.26	33.59	25.83	218	0.23
58	12.33	33.37	100	9.23	33.71	26.09	193	0.28
68	10.82	33.52	150	8.42	33.98	26.43	161	0.37
77	10.14	33.60	200	7.73	34.10	26.63	142	0.45
97	9.30	33.69	250	7.27	34.14	26.73	132	0.52
120	8.88	33.84	300	6.81	34.16	26.80	126	0.58
148	8.47	33.97	400	6.09	34.21	26.94	112	0.71
194	7.80	34.09	500	5.68	34.28	27.05	102	0.82
250	7.27	34.14						
349	6.40	34.18						
465	5.79	34.25						
588	5.36	34.35						

97.80

CREST; May 23, 1954; 1136 GCT; 30°34'N, 120°31'W; sounding, 2050 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 06°.

0	15.76	33.30	0	15.76	33.30	24.52	342	0.00
10	15.72	33.33	10	15.72	33.33	24.55	340	0.03
30	15.66	33.31	20	15.69	33.32	24.55	340	0.07
40	15.39	33.33	30	15.66	33.31	24.55	340	0.10
50	13.62	33.35	50	13.62	33.35	25.01	296	0.17
62	12.32	33.32	75	10.99	33.41	25.56	243	0.23
72	11.10	33.38	100	9.78	33.64	25.95	206	0.29
82	10.76	33.49	150	8.99	33.98	26.34	169	0.38
92	9.86	33.55	200	8.67	34.14	26.52	152	0.47
101	9.76	33.64	250	7.80	34.17	26.67	138	0.54
126	9.22	33.79	300	7.21	34.18	26.77	128	0.61
156	8.96	34.02	400	6.49	34.24	26.91	115	0.74
207	8.49	34.15	500	5.98	34.32	27.04	103	0.85
267	7.62	34.17	600	5.41	34.37	27.15	92	0.96
372	6.66	34.22						
492	6.00	34.32						
620	5.30	34.38						

100.29

HORIZON; May 21, 1954; 1024 GCT; 31°42.5'N, 116°43.5'W; sounding, 60 fm; wind, calm; weather, overcast; sea, calm; wire angle, 00°.

0	14.64	33.66	0	14.64	33.66	25.04	293	0.00
2	14.62	33.66	10	13.72	33.48	25.09	288	0.03
4	14.60	33.63	20	11.99	33.49	25.44	255	0.06
6	14.60	33.54	30	11.40	33.61	25.64	236	0.08
8	14.48	33.55	50	10.29	33.64	25.86	215	0.13
10	13.72	33.48	75	9.69	33.68	25.99	202	0.18
15	12.66	33.46	100	9.36	33.77	26.12	190	0.23
20	11.99	33.49						
25	11.40	33.62						
31	11.40	33.61						
36	10.83	33.58						
41	10.65	33.65						
46	10.46	33.60						
51	10.24	33.64						
71	9.75	33.67						
102	9.34	33.78						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

100.50 HORIZON; May 20, 1954; 2350 GCT; 31°01.5'N, 118°08'W; sounding, 975 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 16°.

0	15.98	33.31	0	15.98	33.31	24.47	347	0.00
10	15.86	33.32	10	15.86	33.32	24.51	343	0.04
30	15.37	33.28	20	15.69	33.30	24.53	341	0.07
40	14.64	33.21	30	15.37	33.28	24.59	336	0.10
50	13.50	33.02	50	13.50	33.02	24.78	318	0.17
60	13.14	33.10	75	11.93	33.11	25.16	281	0.24
70	12.22	33.10	100	10.67	33.22	25.47	252	0.31
80	11.69	33.12	150	9.16	33.65	26.06	196	0.42
108	10.34	33.30	200	8.53	33.85	26.31	172	0.52
147	9.20	33.64	250	7.78	34.04	26.57	148	0.60
194	8.62	33.82	300	7.29	34.14	26.72	133	0.67
290	7.37	34.13	400	6.57	34.20	26.87	119	0.80
433	6.36	34.22	500	5.89	34.28	27.02	105	0.92
625	5.26	34.42	600	5.33	34.40	27.18	90	1.02
868	4.35	34.47	700	4.93	34.45	27.27	81	1.12
1170	3.67	34.47	800	4.58	34.47	27.32	76	1.20
			1000	4.00	34.42	27.35	74	1.37

100.70 HORIZON; May 20, 1954; 1434 GCT; 30°19.5'N, 119°28'W; sounding, 2100 fm; wind, 320°, force 4; weather, overcast; sea, slight; wire angle, 18°.

0	15.72	33.33	0	15.72	33.33	24.55	340	0.00
10	15.71	33.32	10	15.71	33.32	24.54	340	0.03
30	15.62	33.27	20	15.70	33.29	24.52	342	0.07
50	14.72	33.22	30	15.62	33.27	24.52	342	0.10
68	13.68	33.27	50	14.72	33.22	24.68	327	0.17
79	12.54	33.22	75	13.06	33.26	25.05	292	0.25
88	11.04	33.09	100	10.20	33.19	25.53	246	0.32
96	10.48	33.15	150	8.80	33.73	26.18	184	0.42
116	9.63	33.39	200	8.17	33.99	26.48	156	0.51
135	9.10	33.60	250	7.79	34.10	26.62	143	0.59
190	8.24	33.96	300	7.39	34.18	26.74	131	0.66
285	7.53	34.16	400	6.61	34.27	26.92	114	0.79
425	6.46	34.29	500	6.01	34.32	27.04	103	0.90
614	5.42	34.36	600	5.50	34.35	27.12	95	1.01
855	4.38	34.47	700	5.00	34.40	27.22	86	1.11
1152	3.50	34.54	800	4.57	34.45	27.31	77	1.20
			1000	3.92	34.51	27.43	66	1.36

100.90 HORIZON; May 20, 1954; 0516 GCT; 29°41.5'N, 120°44.5'W; sounding, 2250 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 32°.

0	15.8	33.22	0	15.8	33.22	24.45	349	0.00
10	15.90	33.15	10	15.90	33.15	24.37	357	0.04
36	15.18	33.11	20	15.64	33.14	24.42	352	0.07
53	14.77	33.12	30	15.34	33.12	24.47	347	0.11
70	14.48	33.22	50	14.82	33.11	24.58	337	0.17
88	15.42	33.68	75	14.41	33.32	24.82	314	0.26
96	15.48	33.66	100	15.20	33.61	24.88	308	0.34
104	14.44	33.53	150	10.45	33.33	25.59	240	0.47
113	13.26	33.46	200	8.69	33.70	26.17	185	0.58
129	11.70	33.31	250	7.92	33.95	26.48	156	0.67
153	10.28	33.33	300	7.38	34.03	26.62	143	0.74
193	8.82	33.64	400	6.53	34.08	26.78	128	0.88
292	7.45	34.02	500	5.84	34.17	26.94	112	1.01
432	6.30	34.11	600	5.24	34.26	27.08	99	1.12
629	5.11	34.28	700	4.81	34.32	27.18	90	1.22
853	4.32	34.38	800	4.50	34.36	27.25	83	1.32
1149	3.55	34.46	1000	3.90	34.43	27.37	72	1.49

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

103.30 HORIZON; May 18, 1954; 1504 GCT; 31°05'N, 116°25'W; sounding, 40 fm; wind, calm; weather, overcast; sea, calm; wire angle, 00°.

0	13.12	33.56	0	13.12	33.56	25.27	271	0.00
5	12.76	33.60	10	12.42	33.58	25.43	256	0.03
10	12.42	33.58	20	11.80	33.57	25.54	245	0.05
15	12.12	33.56	30	10.83	33.61	25.74	226	0.08
20	11.80	33.57	50	10.20	33.67	25.90	211	0.12
25	10.96	33.62						
30	10.83	33.61						
35	10.76	33.63						
41	10.67	33.61						
46	10.33	33.64						
51	10.16	33.68						
57	9.86	33.72						
62	9.74	33.73						

103.40 HORIZON; May 18, 1954; 2003 GCT; 30°46.5'N, 117°02.5'W; sounding, 1000 fm; wind, 200°, force 1; weather, overcast; sea, moderate; wire angle, 22°.

0	16.16	33.41	0	16.16	33.41	24.51	343	0.00
10	15.74	33.40	10	15.74	33.40	24.60	335	0.03
20	15.35	33.40	20	15.35	33.40	24.68	327	0.07
29	14.08	33.36	30	14.02	33.36	24.94	302	0.10
39	13.50	33.33	50	12.20	33.29	25.24	274	0.16
48	12.45	33.28	75	10.71	33.55	25.72	228	0.22
58	11.48	33.49	100	9.78	33.84	26.10	192	0.27
67	11.16	33.48	150	8.78	33.99	26.38	166	0.36
94	9.90	33.80	200	7.89	34.04	26.56	148	0.44
139	9.02	33.98	250	7.72	34.19	26.70	135	0.52
183	7.92	34.01	300	7.48	34.24	26.77	128	0.58
228	7.81	34.13	400	6.81	34.30	26.91	115	0.71
273	7.60	34.22	500	6.13	34.34	27.04	103	0.83
366	7.09	34.28						
460	6.38	34.33						
560	5.77	34.35						

103.60 HORIZON; May 19, 1954; 0600 GCT; 30°05'N, 118°26.5'W; sounding, 1900 fm; wind, 290°, force 2; weather, overcast; sea, smooth; wire angle, 10°.

0	16.06	33.22	0	16.06	33.22	24.39	355	0.00
10	15.89	33.21	10	15.89	33.21	24.42	352	0.04
30	15.36	33.21	20	15.62	33.21	24.48	346	0.07
50	14.33	33.10	30	15.36	33.21	24.54	340	0.10
70	13.34	32.99	50	14.33	33.10	24.67	328	0.17
90	12.53	33.15	75	13.29	33.00	24.81	315	0.25
110	11.42	33.18	100	11.95	33.16	25.19	279	0.33
130	10.38	33.31	150	9.68	33.60	25.93	208	0.45
150	9.68	33.60	200	8.78	33.96	26.36	167	0.55
170	8.88	33.71	250	8.29	34.14	26.58	146	0.63
200	8.78	33.96	300	8.06	34.23	26.68	137	0.70
248	8.30	34.14	400	7.03	34.29	26.88	118	0.83
296	8.09	34.22	500	6.27	34.33	27.01	106	0.95
395	7.11	34.29	600	(5.72)	(34.38)	(27.12)	(95)	(1.06)
494	6.31	34.33						
596	5.74	34.38						

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5405

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

103.80

HORIZON: May 19, 1954; 1445 GCT; 29°24'N, 119°48'W: sounding, 2100 fm: wind, 320°, force 3: weather, overcast; sea, smooth; wire angle, 11°.

0	16.87	33.45	0	16.87	33.45	24.38	356	0.00
10	16.86	33.45	10	16.86	33.45	24.38	356	0.04
45	16.40	33.32	20	16.82	33.45	24.39	355	0.07
65	15.59	33.21	30	16.79	33.45	24.40	354	0.11
100	14.68	33.22	50	16.00	33.27	24.44	350	0.18
120	13.65	33.30	75	15.30	33.21	24.55	340	0.26
135	12.03	33.31	100	14.68	33.22	24.69	326	0.35
165	10.76	33.42	150	11.36	33.35	25.45	254	0.49
190	9.46	33.68	200	9.29	33.74	26.11	191	0.61
209	9.10	33.78	250	8.38	33.99	26.44	160	0.70
233	8.57	33.95	300	7.72	34.05	26.59	146	0.78
277	8.09	34.03	400	6.61	34.14	26.82	124	0.92
346	7.14	34.08	500	5.86	34.24	26.99	108	1.04
454	6.18	34.20	600	5.35	34.31	27.11	96	1.15
564	5.52	34.29						
676	5.05	34.36						

107.35

HORIZON; May 18, 1954; 0813 GCT; 30°19'N, 116°34'W: sounding, 900 fm; wind, 290°, force 1; weather, overcast: sea, calm; wire angle, 05°.

0	16.0	33.54	0	16.0	33.54	24.65	330	0.00
20	13.62	33.52	10	15.94	33.54	24.66	329	0.03
25	11.82	33.54	20	13.62	33.52	25.14	283	0.06
29	11.45	33.49	30	11.41	33.50	25.55	244	0.09
31	11.38	33.52	50	10.09	33.57	25.84	217	0.14
33	11.16	33.53	75	9.36	33.76	26.11	191	0.19
36	10.88	33.58	100	9.10	33.93	26.29	174	0.23
38	10.78	33.53	150	8.82	34.09	26.46	158	0.32
41	10.60	33.54	200	8.51	34.19	26.58	146	0.40
46	10.22	33.57	250	8.12	34.27	26.70	135	0.47
51	10.05	33.57	300	7.70	34.33	26.81	125	0.54
61	9.69	33.64	400	6.84	34.39	26.98	109	0.66
71	9.42	33.72	500	6.11	34.41	27.09	98	0.77
100	9.10	33.93	600	5.53	34.42	27.17	91	0.87
210	8.44	34.21						
408	6.80	34.39						
610	5.50	34.42						

107.50

HORIZON: May 18, 1954; 0025 GCT; 29°58.5'N, 117°28.5'W; sounding, 1100 fm; wind, 320°, force 3; weather, overcast; sea, moderate: wire angle, 14°.

0	16.15	33.22	0	16.15	33.22	24.37	357	0.00
10	16.06	33.18	10	16.06	33.18	24.36	358	0.04
35	16.05	33.22	20	16.06	33.20	24.37	357	0.07
60	14.66	33.08	30	16.06	33.22	24.39	355	0.11
75	13.62	33.08	50	15.31	33.16	24.51	343	0.18
95	12.69	33.09	75	13.62	33.08	24.80	316	0.26
110	11.78	33.10	100	12.41	33.09	25.05	292	0.34
124	10.60	33.18	150	9.51	33.38	25.79	222	0.47
143	9.72	33.32	200	8.49	33.88	26.34	169	0.56
162	9.22	33.50	250	7.80	34.00	26.54	150	0.65
191	8.60	33.82	300	7.19	34.06	26.67	138	0.72
219	8.30	33.95	400	6.63	34.18	26.84	122	0.86
331	6.95	34.10	500	6.21	34.28	26.98	109	0.98
438	6.49	34.23	600	5.72	34.33	27.08	99	1.09
546	6.01	34.31	700	(5.28)	(34.36)	(27.16)	(92)	(1.19)
686	5.34	34.36						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; May 17, 1954; 1506 GCT; 29°15'N, 118°45'W; sounding, 2000 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 26°. 107.70

0	16.0	33.36	0	16.0	33.36	24.51	343	0.00
10	16.09	33.35	10	16.09	33.35	24.48	346	0.04
52	15.62	33.34	20	(16.03)	(33.35)	(24.49)	(345)	(0.07)
83	14.80	33.32	30	(15.94)	(33.34)	(24.51)	(343)	(0.10)
92	13.82	33.17	50	(15.67)	(33.34)	(24.57)	(338)	(0.17)
100	13.24	33.07	75	15.07	33.33	24.69	326	(0.26)
110	13.14	33.12	100	13.24	33.07	24.87	309	(0.34)
121	12.26	33.15	150	10.59	33.30	25.55	244	(0.48)
140	11.15	33.24	200	8.77	33.74	26.19	184	(0.58)
150	10.59	33.30	250	7.87	33.98	26.51	153	(0.67)
157	9.72	33.32	300	7.04	34.01	26.66	139	(0.74)
176	9.15	33.52	400	6.84	34.25	26.87	119	(0.88)
240	8.08	33.97	500	6.22	34.28	26.98	109	(1.00)
334	6.90	34.03	600	5.45	34.32	27.11	96	(1.11)
441	6.76	34.28						
553	5.75	34.29						
648	5.20	34.36						

HORIZON; May 16, 1954; 0020 GCT; 29°50.5'N, 115°52.5'W; sounding, 58 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 13°. 110.33

0	15.7	33.45	0	15.7	33.45	24.64	331	0.00
5	15.46	33.42	10	15.26	33.42	24.72	323	0.03
10	15.26	33.42	20	14.42	33.39	24.88	308	0.06
15	15.23	33.44	30	12.70	33.17	25.06	291	0.09
20	14.42	33.39	50	10.36	33.17	25.48	251	0.15
25	13.52	33.22	75	9.44	33.55	25.93	208	0.21
30	12.70	33.17						
35	11.84	33.21						
40	10.94	33.13						
45	10.48	33.13						
50	10.36	33.17						
55	10.21	33.23						
60	10.26	33.47						
65	9.88	33.40						
70	9.62	33.57						
80	9.34	33.53						
90	9.32	33.81						

HORIZON; May 16, 1954; 0502 GCT; 29°36.5'N, 116°20'W; sounding, 1450 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 25°. 110.40

0	16.0	33.39	0	16.0	33.39	24.53	341	0.00
10	16.00	33.37	10	16.00	33.37	24.52	342	0.03
24	15.96	33.39	20	15.98	33.39	24.54	340	0.07
33	15.86	33.37	30	15.89	33.38	24.55	340	0.10
43	14.92	33.27	50	14.50	33.23	24.74	321	0.17
52	14.37	33.22	75	12.69	33.14	25.03	294	0.25
70	13.12	33.17	100	10.80	33.15	25.39	260	0.32
84	11.62	33.03	150	9.25	33.68	26.07	195	0.43
100	10.80	33.15	200	8.89	34.04	26.40	164	0.52
152	9.24	33.68	250	8.51	34.16	26.56	148	0.60
220	8.76	34.11	300	8.05	34.23	26.68	137	0.68
304	8.02	34.23	400	7.01	34.26	26.86	120	0.81
432	6.71	34.27	500	6.29	34.30	26.98	109	0.93
562	5.94	34.34	600	5.74	34.36	27.10	97	1.04
739	5.04	34.42	700	5.24	34.41	27.20	88	1.14
922	4.25	34.46	800	4.77	34.43	27.27	81	1.23
1164	3.58	34.54	1000	4.03	34.48	27.39	70	1.40

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

110.60

HORIZON; May 16, 1954; 1404 GCT; 28°59.5'N, 117°35.5'W; sounding, 2000 fm; wind, 320°, force 5; weather, overcast; sea, moderate; wire angle, 30°.

0	16.9	33.41	0	16.9	33.41	24.34	360	0.00
10	16.98	33.41	10	16.98	33.41	24.32	361	0.04
23	16.99	33.42	20	17.00	33.42	24.32	361	0.07
50	16.10	33.37	30	16.64	33.41	24.40	354	0.11
59	16.07	33.39	50	16.10	33.37	24.49	345	0.18
68	16.86	33.78	75	16.41	33.75	24.71	324	0.26
81	15.62	33.68	100	12.60	33.32	25.19	279	0.34
98	12.86	33.40	150	9.69	33.60	25.93	208	0.46
120	11.14	33.30	200	8.68	34.06	26.45	159	0.55
145	9.84	33.54	250	8.35	34.22	26.63	142	0.63
191	8.76	34.00	300	7.93	34.25	26.72	133	0.70
258	8.29	34.22	400	6.90	34.29	26.89	117	0.83
350	7.49	34.27	500	6.05	34.35	27.05	102	0.95
472	6.22	34.33	600	5.53	34.42	27.17	91	1.05
638	5.38	34.44	700	5.10	34.47	27.27	81	1.14
849	4.57	34.51	800	4.73	34.50	27.33	75	1.23
1144	3.64	34.54	1000	4.08	34.53	27.43	66	1.39

110.80

HORIZON; May 16, 1954; 2333 GCT; 28°17'N, 118°58'W; sounding, 2175 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 25°.

0	17.2	33.51	0	17.2	33.51	24.34	360	0.00
10	17.28	33.60	10	17.28	33.60	24.39	355	0.04
43	16.92	33.58	20	17.27	33.59	24.39	355	0.07
53	16.73	33.77	30	17.20	33.58	24.40	354	0.11
63	15.56	33.55	50	16.26	33.57	24.61	334	0.18
73	14.64	33.42	75	14.61	33.42	24.86	310	0.26
82	14.52	33.60	100	12.00	33.42	25.38	260	0.33
93	13.48	33.48	150	9.62	33.56	25.91	210	0.45
102	11.80	33.40	200	8.82	33.90	26.31	172	0.54
115	10.46	33.28	250	8.28	34.13	26.57	148	0.63
128	10.05	33.38	300	7.79	34.24	26.73	132	0.70
216	8.64	33.98	400	6.95	34.31	26.90	116	0.83
313	7.66	34.25	500	6.23	34.37	27.05	102	0.94
448	6.61	34.34	600	5.63	34.42	27.16	92	1.05
678	5.22	34.45	700	5.13	34.46	27.25	83	1.14
962	4.13	34.53	800	4.70	34.49	27.33	75	1.23
1309	3.20	34.59	1000	4.03	34.54	27.44	65	1.39

113.35

HORIZON; May 15, 1954; 1705 GCT; 29°18'N, 115°39'W; sounding, 400 fm; wind, 300°, force 3; weather, overcast; sea, slight; wire angle, 39°.

0	14.9	33.50	0	14.9	33.50	24.86	310	0.00
10	14.33	33.44	10	14.33	33.44	24.93	303	0.03
14	14.14	33.46	20	13.23	33.40	25.13	284	0.06
18	13.82	33.40	30	12.60	33.49	25.32	266	0.09
22	12.93	33.40	50	10.52	33.52	25.73	227	0.14
25	12.92	33.46	75	9.63	33.92	26.19	184	0.19
29	12.66	33.48	100	9.31	33.97	26.28	175	0.23
33	12.44	33.51	150	8.93	34.15	26.48	156	0.32
37	12.01	33.50	200	8.83	34.28	26.60	145	0.39
41	11.40	33.50	250	8.78	34.36	26.67	138	0.47
48	10.72	33.51	300	8.48	34.36	26.72	133	0.54
61	9.55	33.64						
73	9.64	33.91						
113	9.12	34.00						
160	8.90	34.19						
265	8.74	34.36						
376	7.50	34.34						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; May 15, 1954; 0733 GCT; 28°44'N, 116°38.5'W; sounding, 2200 fm; wind, 320°, force 2; weather, overcast; sea, smooth; wire angle, 12°. 113.50

0	17.0	33.46	0	17.0	33.46	24.35	359	0.00
10	17.02	33.48	10	17.02	33.48	24.36	358	0.04
40	16.29	33.35	20	17.02	33.48	24.36	358	0.07
50	15.55	33.30	30	17.00	33.48	24.37	357	0.11
60	14.37	33.26	50	15.55	33.30	24.56	339	0.18
70	13.56	33.19	75	13.20	33.17	24.96	300	0.26
80	12.81	33.16	100	11.52	33.21	25.31	267	0.33
90	12.05	33.15	150	10.71	33.96	26.04	198	0.45
100	11.52	33.21	200	9.61	34.06	26.30	173	0.54
110	11.40	33.26	250	8.49	34.10	26.51	153	0.62
119	11.62	33.56	300	7.81	34.13	26.64	141	0.70
138	10.80	33.76	400	7.06	34.28	26.86	120	0.84
156	10.65	33.98	500	6.39	34.32	26.99	108	0.96
193	9.78	34.05						
285	7.94	34.12						
429	6.87	34.30						
581	5.88	34.34						

HORIZON; May 14, 1954; 2151 GCT; 28°02'N, 117°55.5'W; sounding, 1725 fm: wind, 320°, force 1; weather, overcast; sea, moderate; wire angle, 08°. 113.70

0	17.3	33.41	0	17.3	33.41	24.24	369	0.00
10	16.98	33.44	10	16.98	33.44	24.34	360	0.04
30	16.72	33.42	20	16.92	33.44	24.36	358	0.07
50	15.41	33.26	30	16.72	33.42	24.39	355	0.11
70	14.28	33.19	50	15.41	33.26	24.56	339	0.18
80	13.71	33.16	75	14.00	33.17	24.79	317	0.26
90	12.66	33.16	100	11.68	33.15	25.23	275	0.33
100	11.68	33.15	150	9.76	33.66	25.97	204	0.46
110	10.76	33.25	200	8.77	33.91	26.32	171	0.55
120	10.40	33.31	250	8.53	34.11	26.52	152	0.63
150	9.76	33.66	300	8.24	34.26	26.68	137	0.71
198	8.78	33.91	400	7.34	34.33	26.86	120	0.84
257	8.50	34.13	500	6.42	34.35	27.01	106	0.96
267	8.45	34.18	600	(5.72)	(34.37)	(27.11)	(96)	(1.07)
346	7.94	34.31						
446	6.86	34.34						
597	5.73	34.37						

HORIZON; May 13, 1954; 1343 GCT; 28°41.5'N, 115°02'W; sounding, 75 fm; wind, 320°, force 5; weather, overcast; sea, slight; wire angle, 08°. 117.30

0	15.14	33.40	0	15.14	33.40	24.73	322	0.00
10	15.02	33.37	10	15.02	33.37	24.73	322	0.03
20	13.94	33.40	20	13.94	33.40	24.98	299	0.06
25	12.76	33.37	30	12.36	33.40	25.30	268	0.09
30	12.36	33.40	50	10.36	33.54	25.77	223	0.14
35	11.72	33.42	75	9.51	33.71	26.05	197	0.19
40	11.30	33.45	100	9.20	33.87	26.22	181	0.24
45	10.98	33.48						
50	10.36	33.54						
60	9.81	-						
70	9.56	33.68						
80	9.48	33.74						
90	9.32	33.78						
100	9.20	33.87						
110	9.10	33.95						
120	9.15	-						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m
117.40	HORIZON; May 14, 1954; 0214 GCT; 28°27'N, 115°36'W; sounding, 600 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 20°.							
0	16.26	33.31	0	16.26	33.31	24.41	353	0.00
10	15.76	33.28	10	15.76	33.28	24.50	344	0.04
40	15.67	33.35	20	15.74	33.32	24.54	340	0.07
58	13.98	33.16	30	15.73	33.34	24.55	340	0.10
68	12.61	33.17	50	15.00	33.22	24.62	333	0.17
77	11.88	33.22	75	11.98	33.20	25.22	276	0.25
87	11.68	33.30	100	10.48	33.33	25.59	240	0.31
96	10.78	33.31	150	9.97	34.24	26.38	166	0.42
115	9.64	33.53	200	9.72	34.46	26.60	145	0.49
132	9.34	33.73	250	9.22	34.46	26.68	137	0.57
140	9.34	33.90	300	8.83	34.46	26.74	131	0.64
149	9.92	34.21	400	8.13	34.46	26.85	121	0.77
168	10.04	34.44	500	7.10	34.45	26.99	108	0.89
228	9.42	34.46						
365	8.41	34.46						
560	6.56	34.45						
117.60	HORIZON; May 14, 1954; 1236 GCT; 27°46.5'N, 116°53'W; sounding, 2100 fm; wind, 300°, force 2; weather, overcast; sea, smooth; wire angle, 15°.							
0	17.20	33.46	0	17.20	33.46	24.31	362	0.00
10	17.20	33.48	10	17.20	33.48	24.32	361	0.04
50	16.76	33.49	20	17.20	33.48	24.32	361	0.07
90	15.64	33.57	30	17.20	33.48	24.32	361	0.11
109	13.54	33.31	50	16.76	33.49	24.43	351	0.18
119	12.32	33.33	75	16.19	33.54	24.60	335	0.27
129	11.67	33.33	100	14.56	33.42	24.87	309	0.35
138	11.04	33.47	150	10.83	33.60	25.74	226	0.48
149	10.87	33.57	200	10.61	34.20	26.24	179	0.59
159	10.48	33.78	250	9.56	34.27	26.48	156	0.67
178	10.86	34.05	300	8.70	34.29	26.63	142	0.75
216	10.24	34.25	400	7.27	34.31	26.86	120	0.89
294	8.78	34.29	500	6.38	34.42	27.07	100	1.00
391	7.38	34.31	600	5.85	34.46	27.17	91	1.11
514	6.28	34.43						
648	5.68	34.48						
120.25	HORIZON; May 13, 1954; 0655 GCT; 28°24'N, 114°18'W; sounding, 45 fm; wind, 320°, force 5; weather, overcast; sea, smooth; wire angle, 10°.							
0	15.42	33.45	0	15.42	33.45	24.71	324	0.00
5	15.43	33.40	10	15.42	33.40	24.67	328	0.03
10	15.42	-	20	15.40	33.40	24.67	328	0.07
15	15.41	33.40	30	13.43	33.43	25.11	286	0.10
20	15.40	33.40	50	10.99	33.51	25.64	236	0.15
25	15.20	33.41						
30	13.43	33.43						
35	12.12	33.47						
40	11.64	33.48						
45	11.24	33.48						
50	10.99	33.51						
55	10.68	33.58						
60	10.46	33.64						
65	10.14	33.73						
70	10.08	33.80						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; May 13, 1954; 0131 GCT; 28°03'N, 114°54'W; sounding, 45 fm; wind, 340°, force 4; weather, clear; sea, moderate; wire angle, 15°. 120.35

0	16.46	33.42	0	16.46	33.42	24.45	349	0.00
5	16.43	33.38	10	16.17	33.39	24.49	345	0.04
10	16.17	33.39	20	15.54	33.34	24.60	335	0.07
15	15.68	33.37	30	15.44	33.40	24.66	329	0.10
20	15.54	33.34	50	13.27	33.36	25.09	288	0.16
25	15.48	33.43						
30	15.44	33.40						
35	15.12	33.39						
40	13.99	33.35						
45	13.54	33.34						
50	13.27	33.36						
55	13.10	33.42						
60	13.00	33.40						
65	12.58	33.40						
70	12.01	33.40						

HORIZON; May 12, 1954; 1533 GCT; 27°32'N, 116°01'W; sounding, 2100 fm; wind, 330°, force 3; weather, overcast; sea, moderate; wire angle, 18°. 120.50

0	15.4	33.40	0	15.4	33.40	24.67	328	0.00
10	15.30	33.44	10	15.30	33.44	24.73	322	0.03
15	14.66	33.42	20	13.20	33.32	25.07	290	0.06
22	12.74	33.31	30	11.76	33.36	25.38	260	0.09
28	11.72	33.37	50	10.69	33.54	25.71	229	0.14
33	11.11	33.35	75	10.32	33.84	26.01	201	0.19
40	10.94	33.45	100	10.62	34.11	26.17	185	0.24
59	10.38	33.62	150	9.50	34.08	26.34	169	0.33
79	10.56	33.89	200	9.08	34.25	26.54	150	0.42
107	10.54	34.12	250	8.72	34.41	26.72	133	0.49
145	9.56	34.08	300	8.33	34.50	26.85	121	0.55
211	8.99	34.29	400	7.41	34.46	26.96	110	0.68
317	8.24	34.50	500	6.58	34.45	27.06	101	0.79
432	7.11	34.45	600	5.88	34.46	27.16	92	0.89
624	5.72	34.46	700	5.26	34.47	27.25	83	0.99
867	4.50	34.50	800	4.77	34.49	27.32	76	1.08
1168	3.64	34.59	1000	4.08	34.54	27.43	66	1.24

HORIZON; May 12, 1954; 0551 GCT; 26°52'N, 117°11'W; sounding, 2000 fm; wind, 330°, force 3; weather, overcast; sea, moderate; wire angle, 13°. 120.70

0	16.9	33.38	0	16.9	33.38	24.32	361	0.00
10	17.00	33.37	10	17.00	33.37	24.29	364	0.04
30	16.77	33.37	20	16.90	33.37	24.31	362	0.07
60	16.36	33.68	30	16.77	33.37	24.34	360	0.11
81	13.94	33.32	50	16.41	33.63	24.41	353	0.18
85	13.30	33.27	75	14.81	33.43	24.82	314	0.26
89	13.14	33.44	100	12.25	33.48	25.38	260	0.34
94	12.93	33.45	150	10.14	33.81	26.02	200	0.45
98	12.38	33.47	200	9.50	34.22	26.45	159	0.54
108	11.89	33.54	250	(9.49)	(34.40)	(26.59)	(146)	(0.62)
118	11.35	33.59	300	(8.72)	(34.41)	(26.72)	(133)	(0.70)
147	10.22	33.78	400	(7.95)	(34.42)	(26.85)	(121)	(0.83)
240	9.84	34.40	500	6.70	34.46	27.06	101	(0.94)
430	7.66	34.43	600	5.86	34.51	27.20	87	(1.04)
619	5.72	34.51	700	5.21	34.50	27.28	81	(1.14)
860	4.56	34.49	800	4.80	34.49	27.32	77	(1.22)
1161	3.65	34.54	1000	4.12	34.51	27.41	68	(1.39)

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

120.90

HORIZON; May 11, 1954; 1135 GCT; 26°25'N, 118°18'W; sounding, 2200 fm; wind, 330°, force 3; weather, cloudy; sea, rough; wire angle, 28°.

0	17.0	33.35	0	17.0	33.35	24.27	366	0.00
10	16.98	33.37	10	16.98	33.37	24.29	364	0.04
33	16.93	33.43	20	16.94	33.37	24.30	363	0.07
63	17.85	34.24	30	16.93	33.38	24.31	362	0.11
80	16.07	33.78	50	17.75	34.05	24.63	332	0.18
84	15.38	33.68	75	17.10	34.03	24.77	319	0.26
88	14.86	33.66	100	13.38	33.54	25.21	277	0.34
96	14.16	33.59	150	11.21	33.92	25.92	209	0.46
105	12.84	33.51	200	10.30	34.20	26.30	173	0.56
118	12.02	33.65	250	9.74	34.35	26.51	153	0.64
131	11.70	33.78	300	9.27	34.38	26.61	144	0.72
173	10.70	34.06	400	8.22	34.40	26.79	127	0.86
255	9.69	34.36	500	7.00	34.37	26.94	112	0.99
381	8.44	34.40	600	6.03	34.37	27.07	100	1.10
552	6.45	34.37	700	5.30	34.39	27.18	90	1.20
772	4.93	34.40	800	4.82	34.41	27.25	83	1.30
1056	4.00	34.47	1000	4.14	34.46	27.36	73	1.47

123.40

HORIZON; May 10, 1954; 1349 GCT; 27°19.5'N, 114°52'W; sounding, 305 fm; wind, 320°, force 4; weather, partly cloudy; sea, slight; wire angle, 32°.

0	14.4	33.39	0	14.4	33.39	24.88	308	0.00
10	14.38	33.37	10	14.38	33.37	24.87	309	0.03
23	13.94	33.42	20	14.28	33.41	24.92	304	0.06
27	13.88	33.43	30	13.52	33.53	25.17	280	0.09
31	13.37	33.53	50	11.18	33.64	25.71	229	0.14
35	11.94	33.46	75	9.92	33.75	26.01	201	0.20
39	11.50	33.43	100	10.30	34.13	26.24	179	0.24
58	10.88	33.76	150	10.23	34.45	26.50	154	0.33
65	10.10	33.63	200	10.52	34.58	26.55	149	0.41
72	9.96	33.73	250	(10.31)	(34.57)	(26.58)	(146)	(0.48)
84	9.84	33.79	300	(9.72)	(34.56)	(26.68)	(137)	(0.56)
89	9.83	33.90	400	(8.57)	(34.50)	(26.81)	(124)	(0.69)
98	10.32	34.08						
101	10.25	34.14						
111	9.97	34.23						
209	10.53	34.58						
439	8.12	34.48						

123.60

HORIZON; May 11, 1954; 0946 GCT; 26°39'N, 116°15'W; sounding, 2150 fm; wind, 320°, force 5; weather, overcast; sea, moderate; wire angle, 33°.

0	16.6	33.45	0	16.6	33.45	24.44	350	0.00
9	16.60	33.49	10	16.59	33.49	24.47	347	0.04
18	16.53	33.49	20	16.30	33.46	24.52	342	0.07
22	15.37	33.41	30	14.28	33.36	24.88	308	0.10
27	14.35	33.31	50	11.29	33.26	25.39	260	0.16
31	14.25	33.36	75	10.44	33.78	25.95	206	0.22
35	13.80	33.35	100	9.65	34.10	26.33	170	0.26
39	13.03	33.38	150	9.51	34.38	26.57	148	0.35
47	11.53	33.25	200	9.32	34.44	26.65	140	0.42
55	11.04	33.30	250	8.98	34.46	26.72	133	0.49
69	10.62	33.57	300	8.52	34.46	26.79	127	0.56
99	9.66	34.09	400	7.40	34.44	26.94	112	0.68
174	9.43	34.42	500	6.47	34.44	27.07	100	0.80
268	8.83	34.46						
367	7.76	34.45						
432	7.07	34.43						
571	5.89	34.45						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; May 10, 1954; 0710 GCT; 26°56'N, 114°05'W; sounding, 41 fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 12°. 127.34

0	13.95	33.35	0	13.95	33.35	24.94	302	0.00
5	13.93	33.37	10	13.46	33.29	25.00	297	0.03
10	13.46	33.29	20	11.88	33.26	25.28	270	0.06
12	12.76	33.27	30	11.40	33.50	25.56	243	0.08
15	12.35	33.27	50	11.23	33.96	25.94	207	0.13
18	11.90	33.19						
20	11.88	33.26						
25	11.78	33.42						
30	11.40	33.50						
35	11.42	33.65						
40	10.84	33.75						
45	10.95	33.82						
50	11.23	33.96						
55	11.35	34.03						
60	10.98	34.03						

HORIZON; May 9, 1954; 2050 GCT; 26°20.5'N, 115°12'W; sounding, 1850 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 20°. 127.50

0	17.4	33.58	0	17.4	33.58	24.35	359	0.00
10	17.45	33.59	10	17.45	33.59	24.35	359	0.04
39	18.00	34.02	20	17.43	33.60	24.36	358	0.07
63	17.44	33.96	30	17.77	33.89	24.50	344	0.11
82	15.90	33.87	50	18.03	34.00	24.52	342	0.18
91	14.36	33.69	75	16.84	33.91	24.74	321	0.26
106	12.56	33.68	100	13.06	33.68	25.38	260	0.33
114	12.06	33.86	150	11.45	34.10	26.01	201	0.45
123	10.28	33.53	200	10.77	34.34	26.32	171	0.54
132	11.25	33.82	250	10.42	34.47	26.49	155	0.63
141	11.52	33.97	300	10.00	34.52	26.60	145	0.71
145	11.47	34.03	400	8.27	34.41	26.79	127	0.85
154	11.44	34.14	500	7.02	34.40	26.96	110	0.98
202	10.74	34.35	600	6.14	34.41	27.09	98	1.09
301	10.00	34.52						
440	7.66	34.40						
658	5.70	34.42						

HORIZON; May 8, 1954; 1946 GCT; 26°27'N, 113°28'W; sounding, 45 fm; wind, 270°, force 2; weather, clear; sea, slight; wire angle, 00°. 130.30

0	14.94	33.53	0	14.94	33.53	24.87	309	0.00
5	14.49	33.44	10	14.14	33.42	24.96	300	0.03
10	14.14	33.42	20	12.14	33.55	25.46	253	0.06
15	12.64	33.45	30	11.62	33.58	25.58	242	0.08
20	12.14	33.55	50	10.68	33.78	25.90	211	0.13
25	11.84	33.54						
30	11.62	33.58						
35	11.39	33.60						
40	11.18	33.68						
44	10.89	33.68						
49	10.68	33.74						
54	10.94	33.94						
58	11.22	34.04						
63	11.24	34.07						
68	11.23	34.09						

SIO

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5405

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

130.40

HORIZON; May 9, 1954; 0109 GCT; 26°08.5'N, 114°08.5'W; sounding, 1300 fm; wind, 290°, force 6; weather, clear; sea, moderate; wire angle, 42°.

0	16.5	33.35	0	16.5	33.35	24.39	355	0.00
9	16.45	33.35	10	16.45	33.35	24.40	354	0.04
20	16.25	33.42	20	16.25	33.42	24.50	344	0.07
39	15.25	33.30	30	16.06	33.36	24.49	345	0.10
58	13.48	33.21	50	14.69	33.23	24.70	325	0.17
66	13.10	33.22	75	12.32	33.24	25.18	280	0.25
77	12.20	33.25	100	10.50	33.38	25.62	238	0.31
92	11.21	33.51	150	11.12	34.26	26.20	183	0.42
100	10.50	33.38	200	10.49	34.44	26.45	159	0.51
111	11.06	33.75	250	9.62	34.45	26.61	144	0.58
118	11.30	34.02	300	8.87	34.44	26.72	133	0.66
165	10.99	34.34	400	7.66	34.40	26.87	119	0.79
231	9.95	34.45	500	6.78	34.38	26.98	109	0.91
325	8.55	34.43	600	6.07	34.42	27.11	96	1.02
493	6.82	34.38	700	5.49	34.45	27.20	88	1.12
643	5.79	34.43	800	4.99	34.47	27.28	80	1.21
918	4.46	34.49						

130.60

HORIZON; May 9, 1954; 1106 GCT; 25°28'N, 115°23.5'W; sounding, 2100 fm; wind, 320°, force 5; weather, missing; sea, moderate; wire angle, 15°.

0	17.0	33.36	0	17.0	33.36	24.28	365	0.00
10	17.03	33.49	10	17.03	33.49	24.37	357	0.04
25	15.96	33.32	20	16.02	33.36	24.50	344	0.07
60	15.36	33.42	30	15.94	33.33	24.50	344	0.11
79	13.73	33.34	50	15.83	33.40	24.58	337	0.17
93	12.62	33.30	75	14.18	33.36	24.90	306	0.26
108	11.69	33.38	100	12.24	33.32	25.26	272	0.33
127	10.68	33.44	150	11.61	34.02	25.92	209	0.45
161	11.70	34.28	200	11.12	34.45	26.35	168	0.55
185	11.25	34.38	250	10.29	34.51	26.54	150	0.63
214	11.00	34.49	300	9.48	34.51	26.68	137	0.70
291	9.56	34.51	400	8.28	34.48	26.84	122	0.84
389	8.42	34.48	500	7.08	34.43	26.98	109	0.96
558	6.45	34.43	600	6.07	34.44	27.12	95	1.07
681	5.49	34.47	700	(5.41)	(34.47)	(27.23)	(85)	(1.17)
1272	3.51	34.52	800	(4.98)	(34.48)	(27.29)	(79)	(1.26)
1577	2.77	34.60	1000	(4.28)	(34.50)	(27.38)	(71)	(1.43)
			1200	(3.72)	(34.51)	(27.45)	(64)	(1.58)
			1500	2.94	34.58	27.58	52	(1.79)

133.30

HORIZON; May 8, 1954; 0832 GCT; 25°54.5'N, 113°08'W; sounding, 110 fm; wind, 320°, force 5; weather, missing; sea, slight; wire angle, 28°.

0	16.6	33.52	0	16.6	33.52	24.49	345	0.00
10	16.36	33.58	10	16.36	33.58	24.59	336	0.03
15	15.18	33.44	20	14.45	33.44	24.91	305	0.07
19	14.64	33.44	30	13.34	33.36	25.08	289	0.10
24	13.69	33.40	50	12.95	33.63	25.36	262	0.15
28	13.52	33.37	75	12.28	34.26	25.98	204	0.20
37	12.63	33.36	100	11.79	34.33	26.13	189	0.26
46	12.21	33.37	150	11.34	34.58	26.41	163	0.35
51	12.98	33.81						
55	12.96	33.87						
60	12.76	33.91						
64	12.46	33.97						
83	12.12	34.28						
101	11.79	34.33						
130	11.43	34.46						
158	11.32	34.61						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} T_3, cm/g	ΔD dyn. m

HORIZON; May 7, 1954; 2159 GCT; 25°17'N, 114°26'W; sounding, 1750 fm; wind, 290°, force 5; weather, cloudy; sea, moderate; wire angle, 28°. 133.50

0	16.9	33.40	0	16.9	33.40	24.33	360	0.00
10	16.73	33.38	10	16.73	33.38	24.36	358	0.04
24	15.92	33.35	20	16.31	33.36	24.44	350	0.07
42	15.06	33.35	30	15.58	33.35	24.59	336	0.11
64	13.46	33.25	50	14.48	33.32	24.81	315	0.17
83	12.32	33.31	75	12.78	33.28	25.13	284	0.25
92	11.49	33.35	100	10.62	33.29	25.53	246	0.31
100	10.62	33.29	150	9.92	34.06	26.25	178	0.42
121	10.18	33.77	200	10.47	34.50	26.50	154	0.50
150	9.92	34.06	250	(9.52)	(34.43)	(26.61)	(144)	(0.58)
166	9.81	34.19	300	(8.72)	(34.40)	(26.71)	(134)	(0.65)
189	10.46	-	400	(7.62)	(34.40)	(26.88)	(118)	(0.79)
213	10.22	34.49	500	6.88	34.41	26.99	108	(0.91)
237	9.86	34.45						
415	7.50	34.40						
564	6.56	34.42						

HORIZON; May 6, 1954; 1931 GCT; 25°36.5'N, 112°19'W; sounding, 40 fm; wind, 220°, force 3; weather, partly cloudy; sea, slight; wire angle, 05°. 137.23

0	16.90	33.80	0	16.90	33.80	24.64	331	0.00
5	16.70	33.82	10	16.27	33.80	24.78	318	0.03
10	16.27	33.80	20	15.42	33.78	24.96	300	0.06
15	15.72	33.77	30	14.27	33.86	25.27	271	0.09
20	15.42	33.78	50	12.58	34.14	25.83	218	0.14
25	14.76	33.82						
30	14.27	33.86						
35	13.98	33.88						
40	13.16	34.01						
45	12.68	34.13						
50	12.58	34.14						
55	12.56	34.19						
60	12.57	34.35						

HORIZON; May 7, 1954; 0340 GCT; 24°55'N, 113°25'W; sounding, 2000 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 18°. 137.40

0	17.8	33.83	0	17.8	33.83	24.45	349	0.00
10	17.72	33.85	10	17.72	33.85	24.48	346	0.04
20	17.25	33.80	20	17.25	33.80	24.55	340	0.07
40	14.50	33.56	30	16.95	33.72	24.56	339	0.10
45	14.09	33.72	50	13.52	33.82	25.39	260	0.16
50	13.52	33.82	75	12.42	33.93	25.70	230	0.22
54	13.24	33.82	100	11.71	34.15	26.00	202	0.28
59	13.11	33.86	150	10.84	34.34	26.31	172	0.37
68	12.60	33.87	200	10.71	34.56	26.50	154	0.46
77	12.38	33.96	250	10.10	34.59	26.63	142	0.53
95	11.82	34.11	300	9.40	34.58	26.74	131	0.60
113	11.46	34.22	400	7.99	34.53	26.93	113	0.73
139	10.86	34.30	500	6.98	34.50	27.05	102	0.85
184	10.80	34.54						
273	9.76	34.59						
411	7.86	34.52						
556	6.56	34.50						

137.60

HORIZON; May 7, 1954; 1230 GCT; 24°16'N, 114°35'W; sounding, 2100 fm; wind, 340°, force 5; weather, missing; sea, slight; wire angle, 19°.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
0	18.0	33.86	0	18.0	33.86	24.42	352	0.00
10	18.04	33.85	10	18.04	33.85	24.40	354	0.04
49	17.64	33.94	20	17.88	33.86	24.45	349	0.07
68	17.67	33.99	30	17.66	33.87	24.51	343	0.10
72	17.40	34.00	50	17.64	33.94	24.57	338	0.17
76	16.48	33.93	75	16.63	33.98	24.84	312	0.26
81	14.66	33.78	100	12.93	33.69	25.41	258	0.33
85	13.82	33.77	150	10.73	34.33	26.32	171	0.44
90	13.61	33.70	200	10.22	34.36	26.43	161	0.52
94	13.42	33.68	250	9.87	34.47	26.58	146	0.60
103	12.62	33.75	300	9.17	34.49	26.71	134	0.67
116	11.69	33.78	400	7.83	34.46	26.90	116	0.81
139	10.74	34.32	500	6.87	34.46	27.03	104	0.92
183	10.48	34.34						
273	9.54	34.49						
414	7.68	34.46						
561	6.40	34.46						

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
60.55-C	V-10	2130	37°48.0'	123°15.0'	47	310°	4	cloudy	moderate	10.42	33.38
60.70-C	11	0515	37°18.0'	124°21.0'	209	330°	4	missing	moderate	12.40	32.91
60.90-C	11	1650	36°37.0'	125°47.0'	2200	350°	4	cloudy	moderate	13.58	32.98
63.52-C	9	2010	37°20.0'	122°38.0'	40	140°	3	cloudy	moderate	11.14	33.05
67.55-C	9	1300	36°40.0'	122°24.0'	1050	140°	5	cloudy	rough	12.37	32.92
70.55-C	13	0600	36°03.0'	122°02.0'	650	310°	6	partly cloudy	very rough	11.82	33.15
70.70-C	12	1805	35°35.0'	123°12.0'	2000	340°	6	cloudy	very rough	13.28	-
70.90-C	12	0500	34°52.5'	124°30.0'	2200	330°	7	cloudy	rough	13.48	32.92
73.50-C	13	1345	35°37.0'	121°16.5'	50	120°	1	clear	rough	10.47	33.51
77.50-C	14	0820	35°04.0'	120°52.0'	80	320°	3	fog	moderate	11.50	33.35
77.65-C	14	0000	34°35.5'	121°54.0'	2100	330°	4	cloudy	rough	13.50	33.11
80.51-C	14	1315	34°24.5'	120°33.0'	52	320°	3	fog	moderate	11.59	33.94
80.60-C	14	1830	34°09.0'	121°09.0'	1200	270°	2	cloudy	moderate	11.85	33.43
80.80-C	15	0440	33°29.0'	122°32.0'	2200	310°	2	cloudy	slight	14.82	33.21
83.40-C	16	2245	34°14.5'	119°22.0'	30	260°	2	partly cloudy	slight	14.00	33.44
83.48-C	16	1405	33°58.5'	119°55.0'	62	300°	3	cloudy	slight	13.13	33.55
83.55-C	16	0920	33°42.5'	120°23.5'	650	320°	6	partly cloudy	rough	12.90	33.48
83.70-C	16	0020	33°14.5'	121°26.0'	1950	330°	3	partly cloudy	moderate	14.28	33.18
83.90-C	15	1420	32°34.0'	122°47.5'	2200	340°	2	cloudy	slight	14.94	33.18

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
85.40-C	V-17	0230	33°57.0'	119°10.5'	400	260°	2	clear	slight	13.68	33.31
85.50-C	17	0900	33°37.0'	119°52.0'	135	310°	4	cloudy	moderate	13.10	33.43
85.60-C	17	1510	33°16.5'	120°34.5'	1050	340°	4	overcast	rough	13.63	33.27
87.35-C	18	0300	33°50.0'	118°37.5'	300	140°	1	fog	slight	15.14	33.49
87.45-C	18	0900	33°30.0'	119°19.0'	920	calm		fog	smooth	13.58	33.51
87.55-C	18	1500	33°10.0'	120°00.5'	660	100°	2	fog	moderate	14.26	33.18
87.70-C	18	2315	32°38.0'	121°06.0'	1750	340°	4	cloudy	rough	14.68	33.17
87.90-C	19	0830	31°59.0'	122°24.0'	2200	330°	4	clear	rough	15.18	33.11
90.30-C	21	0935	33°25.0'	117°55.0'	320	110°	2	missing	smooth	13.64	33.37
90.33^{5}-C	20	2145	33°17.5'	118°09.5'	400	240°	3	cloudy	smooth	15.40	33.34
90.41-C	20	1645	33°02.5'	118°39.5'	140	200°	4	cloudy	moderate	15.04	33.39
90.45-C	20	1420	32°54.5'	118°56.0'	910	280°	2	cloudy	moderate	14.40	33.37
90.50-C	20	1200	32°44.5'	119°16.0'	65	280°	4	cloudy	moderate	14.74	33.30
90.60-C	20	0515	32°25.0'	119°58.0'	750	330°	4	cloudy	moderate	14.60	33.23
90.80-C	19	1745	31°41.5'	121°25.5'	1900	350°	4	cloudy	rough	15.90	33.22
93.27-C	21	1520	32°56.5'	117°19.5'	50	160°	4	cloudy	moderate	17.14	33.57
93.35-C	21	2050	32°40.0'	117°52.0'	350	200°	2	cloudy	moderate	15.04	33.36
93.40-C	21	2335	32°30.0'	118°12.5'	950	280°	3	cloudy	very rough	14.70	33.38
93.45-C	22	0220	32°20.0'	118°33.0'	385	330°	4	cloudy	very rough	15.02	33.35

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
93.55-C	V-22	0830	32°00.0'	119°14.0'	850	320°	3	cloudy	very rough	14.74	33.37
93.60-C	22	1115	31°49.5'	119°34.5'	1050	310°	4	cloudy	very rough	15.18	33.34
93.80-C	22	2045	31°11.0'	120°55.5'	2100	330°	4	cloudy	very rough	15.22	33.27
97.30-C	24	1550	32°15.5'	117°09.0'	32	330°	3	cloudy	slight	13.21	33.44
97.32-C	24	1445	32°11.5'	117°13.0'	750	010°	2	cloudy	slight	16.46	33.48
97.36-C	24	1243	32°03.5'	117°34.0'	740	320°	3	cloudy	slight	16.04	33.42
97.45-C	24	0615	31°41.5'	118°10.0'	800	300°	3	cloudy	moderate	16.02	33.30
97.50-C	24	0320	31°35.5'	118°31.0'	1300	310°	4	cloudy	moderate	15.90	33.24
97.55-C	24	0040	31°25.5'	118°51.0'	650	330°	2	cloudy	moderate	16.04	33.39
97.70-C	23	1630	30°54.0'	119°49.0'	2000	300°	3	cloudy	rough	15.76	33.51
97.90-C	23	0620	30°15.0'	121°11.0'	2050	340°	4	cloudy	rough	15.54	33.28
100.30-H	21	0915	31°39.5'	116°47.0'	260	320°	1	overcast	calm	15.82	33.61
100.35-H	21	0705	31°29.5'	117°06.5'	700	300°	2	overcast	slight	16.31	33.47
100.40-H	21	0450	31°20.0'	117°25.5'	1070	300°	3	overcast	slight	16.46	33.55
100.45-H	21	0230	31°12.0'	117°46.0'	1100	320°	3	overcast	slight	16.29	33.42
100.55-H	20	2120	30°49.0'	118°20.0'	1350	300°	2	overcast	slight	15.76	33.77
100.60-H	20	1910	30°39.0'	118°42.0'	1350	300°	3	overcast	moderate	16.00	33.41
100.80-H	20	0955	30°00.5'	120°04.0'	2250	330°	3	overcast	moderate	15.91	33.24
100.100-H	20	0055	29°22.0'	121°25.0'	2200	320°	4	overcast	moderate	17.41	33.47

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
103.35-H	V-18	1715	30°56.0'	116°43.5'	1020	calm		overcast	slight	16.12	33.40
103.45-H	18	2235	30°34.0'	117°26.0'	1150	calm		overcast	slight	15.87	33.43
103.50-H	20	0115	30°24.0'	117°47.0'	1450	220°	3	overcast	moderate	16.16	33.21
103.55-H	19	0305	30°16.0'	118°06.0'	1300	270°	4	overcast	moderate	16.87	-
103.70-H	19	1015	29°44.5'	119°07.5'	2000	320°	1	overcast	slight	16.01	33.24
103.90-H	19	1930	29°02.0'	120°26.5'	2175	360°	2	overcast	slight	16.92	33.38
107.32-H	18	1045	30°28.5'	116°15.0'	380	calm		overcast	calm	15.07	33.57
107.40-H	18	0530	30°11.0'	116°49.5'	1600	300°	1	overcast	slight	15.94	33.44
107.45-H	18	0310	30°02.0'	117°07.5'	1300	300°	4	overcast	moderate	15.70	33.44
107.55-H	17	2150	29°49.0'	117°48.0'	2050	320°	3	overcast	moderate	16.01	33.29
107.60-H	17	1935	29°37.0'	118°07.0'	1900	300°	4	overcast	moderate	16.02	33.30
107.80-H	17	1025	28°52.5'	119°23.0'	2300	320°	4	overcast	moderate	16.82	33.40
110.35-H	16	0135	29°46.0'	116°00.0'	635	320°	4	partly cloudy	moderate	16.10	33.40
110.45-H	16	0640	29°28.0'	116°39.0'	1250	320°	4	overcast	moderate	16.08	33.40
110.50-H	16	0855	29°18.5'	116°58.0'	1700	320°	4	overcast	moderate	16.60	33.40
110.55-H	16	1115	29°08.5'	117°17.0'	1950	320°	5	overcast	moderate	17.22	33.56
110.70-H	16	1915	28°35.5'	118°19.0'	2000	300°	5	partly cloudy	moderate	16.60	33.35
110.90-H	17	0420	27°56.5'	119°36.0'	2200	320°	4	cloudy	moderate	16.82	33.26
113.30-H	15	1935	29°26.0'	115°18.5'	37	220°	1	clear	slight	12.12	33.59

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
113.32^{5}-H	V-15	1805	29°21.0'	115°30.5'	60	320°	1	cloudy	slight	12.52	33.52
113.37^{5}-H	15	1500	29°12.5'	115°49.0'	1000	320°	2	overcast	slight	16.03	33.39
113.40-H	15	1340	29°06.5'	115°59.0'	1035	320°	4	overcast	slight	16.50	33.36
113.42^{5}-H	15	1215	29°01.0'	116°09.0'	850	320°	3	overcast	slight	16.53	33.36
113.45-H	15	1040	28°55.0'	116°19.0'	910	320°	2	overcast	slight	17.06	33.68
113.47^{5}-H	15	0915	28°50.0'	116°29.0'	1700	320°	2	overcast	slight	17.00	33.42
113.55-H	15	0425	28°33.5'	116°57.0'	1875	320°	3	overcast	slight	16.94	33.38
113.60-H	15	0205	28°23.0'	117°17.5'	2000	320°	1	overcast	slight	17.29	33.42
117.26-H	13	1115	28°51.5'	114°46.0'	50	320°	3	overcast	missing	14.70	33.50
117.28-H	13	1230	28°45.0'	114°57.0'	60	300°	5	overcast	slight	14.88	33.44
117.32^{5}-H	13	1430	28°38.0'	115°08.0'	90	300°	3	overcast	slight	14.56	33.46
117.35-H	13	1540	28°37.0'	115°17.0'	105	300°	4	overcast	slight	13.52	33.30
117.37^{5}-H	13	1655	28°33.0'	115°25.5'	150	300°	3	overcast	slight	14.78	33.28
117.42^{5}-H	14	0320	28°23.0'	115°45.5'	750	330°	3	overcast	moderate	16.30	33.22
117.45-H	14	0500	28°18.0'	115°55.5'	1700	300°	5	overcast	slight	16.28	33.22
117.47^{5}-H	14	0620	28°13.5'	116°05.5'	2500	300°	4	overcast	slight	16.18	33.25
117.50-H	14	0750	28°08.0'	116°15.0'	2300	300°	4	overcast	moderate	16.22	33.25
117.55-H	14	1010	27°58.0'	116°34.0'	2175	300°	3	cloudy	moderate	16.56	33.30
117.70-H	14	1655	27°25.5'	117°29.0'	2150	320°	1	overcast	slight	17.12	33.40

S10
CCOFI
5405

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
120.27^{5}-H	V-13	0515	28°18.5'	114°27.5'	50	320°	5	cloudy	moderate	15.73	33.49
120.30-H	13	0415	28°13.0'	114°36.5'	50	320°	4	cloudy	moderate	15.53a)	33.45
120.32^{5}-H	13	0250	28°07.5'	114°45.5'	50	320°	5	partly cloudy	moderate	15.94	33.46
120.37^{5}-H	12	2355	27°59.5'	115°01.0'	35	040°	3	partly cloudy	slight	16.14	33.47
120.40-H	12	2250	27°55.5'	115°15.0'	22	320°	5	cloudy	moderate	15.59	33.68
120.42^{5}-H	12	2050	27°55.0'	115°31.0'	90	320°	4	overcast	moderate	17.21	33.67
120.45-H	12	1900	27°41.0'	115°45.0'	2400	320°	4	overcast	moderate	15.64	33.50
120.47^{5}-H	12	1730	27°36.5'	115°53.0'	2100	320°	4	overcast	moderate	16.09	33.46
120.55-H	12	1245	27°22.0'	116°17.5'	2100	330°	5	overcast	moderate	15.59	33.27
120.60-H	12	1025	27°12.5'	116°34.0'	2100	320°	5	overcast	moderate	16.60	33.33
120.80-H	12	0110	26°30.5'	117°47.0'	2150	320°	4	cloudy	moderate	16.98	33.37
123.37-H	10	1150	27°24.5'	114°40.5'	400	320°	4	clear	moderate	12.99	33.55
123.42^{5}-H	11	0040	27°13.5'	115°01.5'	1350	330°	5	partly cloudy	moderate	16.20	33.49
123.45-H	11	0140	27°08.5'	115°12.0'	2350	320°	5	partly cloudy	moderate	16.48	33.55
123.47^{5}-H	11	0320	27°03.5'	115°22.5'	2200	330°	5	partly cloudy	moderate	16.59	33.53
123.50-H	11	0450	26°58.0'	115°33.5'	2150	330°	6	cloudy	moderate	16.72	33.51
123.55-H	11	0710	26°49.0'	115°54.0'	2050	320°	6	overcast	rough	16.78	33.46

a) Alternate value, 15.97°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
127.37-H	V-10	0509	26°45.0'	114°19.0'	1500	320°	5	clear	rough	16.52	33.42
127.40-H	10	0310	26°39.0'	114°29.5'	1750	330°	5	clear	moderate	16.60	33.48
127.42^5-H	10	0155	26°35.5'	114°37.5'	2050	320°	5	clear	moderate	16.69	-
127.45-H	10	0035	26°31.0'	114°48.0'	2000	320°	5	partly cloudy	moderate	17.36	33.50
127.47^5-H	9	2255	26°27.5'	114°59.0'	2000	320°	5	overcast	moderate	17.10	33.43
127.55-H	9	1755	26°12.5'	115°26.0'	2050	320°	5	overcast	moderate	17.22	33.42
127.60-H	9	1535	26°02.5'	115°45.0'	2150	320°	4	overcast	moderate	17.69	33.78
130.35-H	8	2215	26°20.0'	113°48.5'	290	290°	5	clear	moderate	15.48	33.42
130.45-H	9	0345	25°58.5'	114°27.5'	2000	320°	4	partly cloudy	moderate	17.12	33.42
130.50-H	9	0555	25°49.0'	114°46.0'	3050	300°	5	cloudy	moderate	17.20	33.38
130.55-H	9	0815	25°39.0'	115°05.0'	2100	320°	5	cloudy	rough	17.12	33.37
133.25-H	8	1510	26°04.0'	112°48.5'	45	330°	2	partly cloudy	slight	15.78	33.53
133.35-H	8	0530	25°48.5'	113°29.0'	430	340°	4	partly cloudy	moderate	16.98a)	33.55
133.40-H	8	0355	25°40.5'	113°44.0'	1300	320°	4	partly cloudy	moderate	16.76	33.44
133.45-H	8	0016	25°25.0'	114°12.0'	1700	320°	4	cloudy	moderate	16.48b)	33.45
133.60-H	7	1720	24°55.5'	114°59.0'	2150	330°	4	overcast	moderate	16.62	33.40

a) Alternate value, 15.96°C.

b) Alternate value, 16.64°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
137.30-H	V-6	2215	25°21.0'	112°47.5'	180	320°	4	partly cloudy	slight	16.91a)	33.68
137.35-H	7	0050	25°10.5'	113°06.5'	720	320°	4	partly cloudy	moderate	17.69b)	33.76
137.45-H	7	0550	24°46.5'	113°41.0'	2000	320°	3	partly cloudy	moderate	17.31	33.70
137.50-H	7	0810	24°38.0'	114°01.0'	1950	330°	4	partly cloudy	moderate	17.62	33.67

a) Alternate value, 16.17°C.

b) Alternate value, 17.20°C.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; June 5, 1954; 1837 GCT; 39°38.5'N, 124°11.5'W; sounding, 675 fm; wind, 300°, force 2; weather, partly cloudy; sea, rough; wire angle, 15°. 50.50

0	12.41	32.64	0	12.41	32.64	24.70	325	0.00
10	10.47	32.73	10	10.47	32.73	25.12	285	0.03
25	10.34	32.99	20	10.37	32.97	25.33	265	0.06
50	9.14	33.07	30	10.01	33.00	25.41	258	0.08
60	8.86	33.26	50	9.14	33.07	25.61	239	0.13
70	8.61	33.29	75	8.58	33.29	25.87	214	0.19
80	8.52	33.30	100	7.94	33.70	26.28	175	0.24
99	7.96	33.69	150	7.49	33.91	26.51	153	0.32
122	7.82	33.81	200	6.93	33.96	26.63	142	0.40
150	7.49	33.91	250	6.44	33.99	26.72	133	0.47
196	6.96	33.96	300	6.07	34.03	26.80	126	0.54
260	6.37	34.00	400	5.73	34.15	26.94	112	0.66
359	5.82	34.09	500	5.46	34.26	27.06	101	0.77
480	5.54	34.25	600	5.07	34.30	27.13	94	0.88
656	4.84	34.33	700	4.68	34.35	27.22	86	0.97
873	4.04	34.42	800	4.30	34.39	27.29	79	1.06
1183	3.35	34.51	1000	3.73	34.46	27.41	68	1.22

HORIZON; June 6, 1954; 0343 GCT; 39°00.5'N, 125°34'W; sounding, 2100 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 12°. 50.70

0	13.82	32.91	0	13.82	32.91	24.63	332	0.00
10	13.75	32.87	10	13.75	32.87	24.62	333	0.03
25	13.48	32.85	20	13.52	32.85	24.65	330	0.07
55	13.24	32.87	30	13.44	32.85	24.66	329	0.10
65	13.20	32.86	50	13.26	32.87	24.71	324	0.16
75	13.16	32.89	75	13.16	32.89	24.75	320	0.25
90	11.91	32.82	100	11.38	32.83	25.04	293	0.32
110	11.07	32.92	150	9.28	33.30	25.76	224	0.45
134	9.62	33.15	200	8.20	33.72	26.26	177	0.56
164	9.04	33.42	250	7.34	33.89	26.52	152	0.64
217	7.90	33.82	300	6.73	33.96	26.66	139	0.71
296	6.78	33.95	400	6.12	34.13	26.87	119	0.85
404	6.10	34.13	500	5.26	34.14	26.99	108	0.97
547	4.78	34.15	600	4.36	34.18	27.12	95	1.07
740	3.88	34.31	700	3.96	34.26	27.22	86	1.17
978	3.70	34.49	800	3.80	34.39	27.34	74	1.26
1287	3.05	34.52	1000	3.67	34.49	27.44	65	1.41

HORIZON; June 6, 1954; 1307 GCT; 38°22'N, 127°07'W; sounding, 2250 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 13°. 50.90

0	13.21	32.74	0	13.21	32.74	24.62	333	0.00
10	13.20	32.72	10	13.20	32.72	24.61	334	0.03
25	12.90	32.71	20	13.08	32.71	24.63	332	0.07
55	12.03	32.76	30	12.76	32.71	24.69	326	0.10
65	11.61	32.81	50	12.24	32.75	24.82	314	0.16
75	11.30	32.81	75	11.30	32.81	25.04	293	0.24
90	10.90	32.94	100	10.23	33.06	25.42	257	0.31
109	9.57	33.21	150	8.64	33.79	26.25	178	0.42
133	8.99	33.63	200	7.82	33.99	26.53	151	0.50
162	8.40	33.87	250	7.21	34.03	26.65	140	0.58
214	7.64	34.01	300	6.76	34.04	26.72	133	0.65
290	6.82	34.04	400	6.23	34.19	26.91	115	0.78
396	6.26	34.18	500	5.61	34.28	27.05	102	0.89
535	5.39	34.29	600	4.97	34.29	27.14	93	1.00
723	4.34	34.31	700	4.42	34.30	27.21	87	1.09
971	3.68	34.42	800	4.10	34.34	27.27	81	1.18
1275	3.06	-	1000	3.61	(34.43)	(27.39)	(70)	(1.35)

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

53.52 HORIZON; June 5, 1954; 1141 GCT; 39°02.5'N, 123°52'W; sounding, 60 fm; wind, 300°, force 3; weather, partly cloudy; sea, rough; wire angle, 03°.

0	9.83	33.60	0	9.83	33.60	25.91	210	0.00
11	9.64	33.62	10	9.70	33.61	25.94	207	0.02
18	9.11	33.69	20	8.90	33.72	26.15	187	0.04
20	8.90	33.72	30	8.14	33.78	26.32	171	0.06
24	8.13	33.75						
30	8.14	33.78						

53.65 HORIZON; June 5, 1954; 0438, 0458 GCT; 38°36'N, 124°51'W; sounding, 2100 fm; wind, 270°, force 3; weather, rain; sea, rough; wire angle, 22°, 38°.

0	13.03	32.70	0	13.03	32.70	24.63	332	0.00
10	13.10	32.66	10	13.10	32.66	24.58	337	0.03
30	12.10	32.61	20	13.04	32.62	24.56	339	0.07
44	12.00	32.64	30	12.10	32.61	24.74	321	0.10
53	11.96	32.63	50	11.96	32.63	24.78	318	0.16
63	12.05	32.79	75	11.75	32.81	24.96	300	0.24
72	11.76	32.81	100	10.13	32.86	25.28	270	0.31
81	11.79	32.84	150	8.54	33.40	25.96	205	0.43
94	10.34	32.90	200	7.88	33.94	26.48	156	0.53
103	10.02	32.86	250	7.13	33.96	26.60	145	0.60
123	9.21	33.15	300	6.65	34.02	26.72	133	0.67
150	8.54	33.40	400	5.98	34.09	26.86	120	0.80
200	7.88	33.94	500	5.34	34.16	26.99	108	0.92
220	7.50	33.92						
315	6.52	34.04						
429	5.82	34.11						
556	5.02	34.20						

57.55 HORIZON; June 4, 1954; 1901 GCT; 38°24'N, 123°41'W; sounding, 450 fm; wind, 240°, force 4; weather, overcast; sea, rough; wire angle, 05°.

0	10.63	33.14	0	10.63	33.14	25.41	258	0.00
10	10.31	33.12	10	10.31	33.12	25.45	254	0.03
31	9.48	33.30	20	9.68	33.26	25.67	233	0.05
47	9.26	33.31	30	9.50	33.30	25.73	227	0.07
57	9.26	33.39	50	9.26	33.33	25.79	222	0.12
67	9.27	33.44	75	9.10	33.50	25.95	206	0.17
77	9.04	33.55	100	8.72	33.77	26.22	181	0.22
86	8.94	33.70	150	8.27	33.94	26.42	162	0.31
101	8.70	33.77	200	7.73	34.03	26.57	148	0.39
110	8.62	33.82	250	7.34	34.07	26.66	139	0.46
135	8.45	33.90	300	7.01	34.10	26.73	132	0.53
164	8.12	33.98	400	6.26	34.14	26.86	120	0.66
217	7.58	34.04	500	5.75	34.26	27.02	105	0.78
280	7.18	34.09	600	5.27	34.29	27.10	97	0.89
392	6.30	34.14						
522	5.64	34.27						
661	4.94	34.31						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; June 7, 1954; 2345 GCT; 37°37'N, 123°37'W; sounding, 1700 fm; wind, 300°, force 4; weather, cloudy; sea, rough; wire angle, 36°. 60.60

0	12.66	33.06	0	12.66	33.06	24.98	299	0.00
9	12.65	33.01	10	12.64	33.01	24.94	302	0.03
22	12.54	33.06	20	12.56	33.05	24.99	298	0.06
47	11.45	33.17	30	12.32	33.08	25.06	291	0.09
56	11.13	33.26	50	11.33	33.20	25.34	264	0.14
64	11.02	33.33	75	10.96	33.57	25.69	231	0.21
75	10.96	33.57	100	8.93	33.62	26.07	195	0.26
88	9.21	33.58	150	8.34	33.98	26.44	160	0.35
108	8.83	33.72	200	7.66	34.06	26.61	144	0.43
128	8.67	33.88	250	7.12	34.09	26.71	134	0.50
167	8.07	34.02	300	6.66	34.09	26.77	128	0.57
224	7.39	34.08	400	5.73	34.16	26.94	112	0.69
302	6.64	34.09	500	5.15	34.20	27.05	102	0.80
406	5.70	34.16	600	4.73	34.25	27.13	94	0.91
550	4.92	34.22	700	4.38	34.32	27.23	85	1.00
741	4.26	34.36	800	4.12	34.40	27.32	76	1.09
1126	3.68	34.52	1000	3.80	34.49	27.42	67	1.25

HORIZON; June 7, 1954; 1346 GCT; 36°55.5'N, 125°08.5'W; sounding, 2400 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 16°. 60.80

0	13.20	32.90	0	13.20	32.90	24.75	320	0.00
10	13.20	32.91	10	13.20	32.91	24.76	320	0.03
25	12.84	32.94	20	12.92	32.93	24.83	313	0.06
56	10.60	33.13	30	12.76	32.95	24.87	309	0.10
66	9.53	33.32	50	11.83	33.04	25.12	285	0.15
75	9.28	33.44	75	9.28	33.44	25.87	214	0.22
91	9.08	33.60	100	8.96	33.71	26.14	188	0.27
110	8.81	33.78	150	8.37	33.92	26.39	164	0.36
134	8.53	33.86	200	7.67	34.04	26.59	146	0.44
163	8.20	33.97	250	7.07	34.06	26.69	136	0.51
216	7.47	34.05	300	6.60	34.07	26.76	129	0.58
291	6.67	34.07	400	5.90	34.11	26.88	118	0.70
395	5.95	34.11	500	5.20	34.19	27.03	104	0.82
534	5.00	34.22	600	4.67	34.28	27.16	92	0.92
720	4.25	-	700	4.30	34.34	27.25	83	1.02
954	3.78	34.46	800	4.06	34.40	27.32	76	1.10
1267	3.14	34.55	1000	3.68	34.48	27.43	66	1.26

HORIZON; June 7, 1954; 0439 GCT; 36°20'N, 126°32'W; sounding, 2600 fm; wind, 020°, force 3; weather, partly cloudy; sea, rough; wire angle, 20°. 60.100

0	14.58	33.03	0	14.58	33.03	24.57	338	0.00
10	14.58	33.01	10	14.58	33.01	24.55	340	0.03
25	14.46	33.01	20	14.50	33.01	24.57	338	0.07
54	14.13	33.01	30	14.41	33.01	24.59	336	0.10
64	13.94	33.01	50	14.19	33.01	24.63	332	0.17
73	11.28	33.12	75	10.86	33.16	25.39	260	0.24
87	9.79	33.31	100	9.26	33.42	25.86	215	0.30
106	9.07	33.47	150	8.12	33.85	26.37	166	0.40
129	8.52	33.69	200	7.65	33.98	26.55	149	0.48
158	8.00	33.89	250	7.17	34.02	26.65	140	0.55
208	7.60	33.99	300	6.56	34.05	26.75	130	0.62
281	6.80	34.04	400	5.59	34.08	26.90	116	0.75
383	5.70	34.07	500	5.14	34.21	27.06	101	0.86
517	5.09	34.22	600	4.76	34.27	27.15	92	0.97
702	4.40	34.32	700	4.43	34.32	27.22	86	1.06
932	3.78	34.45	800	4.13	34.38	27.30	78	1.15
1241	3.16	34.53	1000	3.62	34.47	27.43	66	1.31

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

63.55

HORIZON; June 9, 1954; 2102 GCT; 37°14'N, 122°49.5'W; sounding, 110 fm; wind, 220°, force 4; weather, cloudy; sea, rough; wire angle, 09°.

0	11.53	33.41	0	11.53	33.41	25.46	253	0.00
10	11.20	33.42	10	11.20	33.42	25.53	246	0.02
21	10.75	33.42	20	10.77	33.42	25.61	239	0.05
31	10.43	33.46	30	10.44	33.46	25.70	230	0.07
41	10.33	33.48	50	10.24	33.43	25.71	229	0.12
51	10.22	33.43	75	9.69	33.53	25.88	213	0.18
77	9.65	33.54	100	9.18	33.61	26.02	200	0.23
102	9.16	33.62	150	8.56	33.88	26.33	170	0.32
128	8.78	33.75						
154	8.52	33.90						

67.50

HORIZON; June 10, 1954; 1240 GCT; 36°49.5'N, 122°05'W; sounding, 75 fm; wind, 320°, force 2; weather, partly cloudy; sea, rough; wire angle, 03°.

0	10.56	33.71	0	10.56	33.71	25.87	214	0.00
10	10.34	33.69	10	10.34	33.69	25.89	212	0.02
21	10.27	33.69	20	10.26	33.69	25.91	210	0.04
31	9.76	33.66	30	9.81	33.66	25.96	205	0.06
41	9.30	33.74	50	9.10	33.76	26.15	187	0.10
52	9.06	33.76	75	8.73	33.85	26.28	175	0.15
77	8.70	33.86	100	8.48	33.92	26.37	166	0.19
103	8.46	33.93						

67.65

HORIZON; June 10, 1954; 0557 GCT; 36°20.5'N, 123°06.5'W; sounding, 1750 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 15°.

0	12.96	33.19	0	12.96	33.19	25.02	295	0.00
10	12.88	33.18	10	12.88	33.18	25.03	294	0.03
32	11.96	33.18	20	12.66	33.18	25.07	290	0.06
47	11.15	33.31	30	12.05	33.18	25.19	279	0.09
57	9.83	33.30	50	10.82	33.31	25.51	248	0.14
67	9.54	33.53	75	9.00	33.67	26.10	192	0.20
77	8.90	33.68	100	8.38	33.77	26.27	176	0.24
87	8.73	33.69	150	7.94	33.96	26.49	155	0.32
102	8.36	33.77	200	7.32	33.99	26.60	145	0.40
111	8.28	33.76	250	6.64	34.00	26.70	135	0.47
135	8.06	33.93	300	6.27	34.03	26.77	128	0.54
164	7.80	33.98	400	5.72	34.12	26.91	115	0.67
217	7.08	33.99	500	5.07	34.21	27.06	101	0.78
279	6.42	34.01	600	4.74	34.32	27.19	89	0.88
391	5.76	34.11						
519	4.98	34.23						
654	4.62	34.38						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

70.52

HORIZON; June 11, 1954; 2225 GCT; 36°08.5'N, 121°50'W; sounding, 355 fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 32°.

0	11.3	33.26	0	11.3	33.26	25.39	260	0.00
10	11.23	33.28	10	11.23	33.28	25.42	257	0.03
27	9.88	33.58	20	10.50	33.44	25.67	233	0.05
36	9.13	33.53	30	9.58	33.58	25.93	208	0.07
45	8.96	33.58	50	8.89	33.59	26.05	197	0.11
54	8.84	33.60	75	8.58	33.70	26.19	184	0.16
63	8.75	33.61	100	8.53	33.84	26.30	173	0.21
71	8.58	33.70	150	8.14	34.01	26.50	154	0.29
80	8.57	33.69						
89	8.58	33.82						
110	8.46	33.86						
137	8.23	33.93						
181	7.93	34.13						

70.60

HORIZON; June 12, 1954; 0301 GCT; 35°54.5'N, 122°22.5'W; sounding, 1750 fm; wind, 300°, force 6; weather, overcast; sea, rough; wire angle, 10°.

0	13.6	33.15u	0	13.6	(33.00)	(24.85)	(311)	(0.00)
10	13.84	33.03	10	13.84	33.03	24.72	323	0.03
25	13.66	33.04	20	13.73	33.04	24.75	320	0.06
56	13.28	33.08	30	13.62	33.04	24.77	319	0.10
66	12.72	33.15	50	13.44	33.07	24.83	313	0.16
77	10.40	33.08	75	11.20	33.08	25.27	271	0.23
91	9.46	33.33	100	9.13	33.44	25.90	211	0.29
111	8.90	33.53	150	8.38	33.83	26.32	171	0.39
136	8.50	33.78	200	7.79	33.95	26.50	154	0.47
165	8.25	33.87	250	7.24	34.04	26.65	140	0.55
217	7.56	33.99	300	6.90	34.10	26.75	130	0.62
293	6.94	34.09	400	5.81	34.16	26.93	113	0.74
399	5.84	34.16	500	5.36	34.21	27.03	104	0.86
537	5.24	34.23	600	5.01	34.29	27.13	94	0.96
725	4.58	34.39	700	4.67	34.37	27.24	84	1.06
962	3.92	34.49	800	4.36	34.43	27.32	76	1.15
1276	3.16	34.55	1000	3.82	34.50	27.43	66	1.31

70.80

HORIZON; June 12, 1954; 1209, 1237 GCT; 35°13'N, 123°48'W; sounding, 2200 fm; wind, 300°, force 4; weather, fog; sea, moderate; wire angle, 17°, 23°.

0	15.11	33.04	0	15.11	33.04	24.46	348	0.00
10	15.14	33.04	10	15.14	33.04	24.45	349	0.04
25	14.76	32.97	20	14.90	33.00	24.47	347	0.07
55	12.05	32.76	30	14.59	32.94	24.49	345	0.10
65	12.20	32.84	50	13.03	32.77	24.68	327	0.17
76	12.23	32.97	75	12.24	32.96	24.98	299	0.25
90	11.26	33.09	100	10.08	33.17	25.53	246	0.32
110	9.56	33.26	150	8.74	33.68	26.15	187	0.43
134	8.83	33.53	200	8.28	33.92	26.41	163	0.52
163	8.71	33.76	250	7.56	33.98	26.56	148	0.60
215	8.07	33.96	300	6.92	34.00	26.66	139	0.67
			400	5.73	34.05	26.86	120	0.81
285	7.18	33.99	500	5.27	34.16	27.00	107	0.92
386	5.86	34.04	600	4.86	34.25	27.12	95	1.03
520	5.20	34.18	700	4.56	34.30	27.19	89	1.13
701	4.56	34.31	800	4.26	34.36	27.27	81	1.22
932	3.91	34.43	1000	3.75	34.46	27.40	69	1.39
1243	3.26	34.55						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

70.100

HORIZON; June 12, 1954; 2133 GCT; 34°31.5'N, 125°10'W; sounding, 2450 fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 18°.

0	15.83	33.20	0	15.83	33.20	24.42	352	0.00
10	15.80	33.19	10	15.80	33.19	24.42	352	0.04
25	15.66	33.13	20	15.74	33.14	24.40	354	0.07
54	14.98	33.19	30	15.53	33.14	24.44	350	0.11
64	14.23	33.08	50	15.09	33.19	24.58	337	0.18
74	13.40	33.06	75	13.34	33.06	24.84	312	0.26
88	13.05	33.04	100	12.64	33.10	25.01	296	0.33
107	11.76	33.15	150	9.62	33.29	25.70	230	0.46
131	10.38	33.17	200	8.36	33.76	26.27	176	0.57
159	9.32	33.39	250	7.66	33.90	26.48	156	0.65
209	8.21	33.80	300	7.24	34.03	26.64	141	0.73
284	7.36	33.99	400	6.55	34.18	26.86	120	0.86
386	6.68	34.17	500	5.70	34.22	27.00	107	0.98
523	5.54	34.23	600	5.13	34.28	27.11	96	1.09
706	4.72	34.38	700	4.73	34.38	27.24	84	1.19
939	3.90	34.44	800	4.36	34.41	27.30	78	1.28
1248	3.22	34.60	1000	3.72	34.47	27.42	67	1.44

73.60

HORIZON; June 11, 1954; 1542 GCT; 35°17.5'N, 121°58'W; sounding, 1300 fm; wind, 340°, force 6; weather, clear; sea, very rough; wire angle, 25°.

0	14.10	32.95	0	14.10	32.95	24.60	335	0.00
10	14.09	32.94	10	14.09	32.94	24.60	335	0.03
29	14.10	32.98	20	14.10	32.97	24.62	333	0.07
43	14.06	32.95	30	14.10	32.98	24.63	332	0.10
57	13.37	32.96	50	13.79	32.95	24.67	328	0.17
66	13.03	32.96	75	12.00	32.94	25.01	296	0.24
76	11.78	32.94	100	9.49	33.27	25.71	229	0.31
90	9.94	33.12	150	8.53	33.76	26.24	179	0.41
99	9.52	33.26	200	7.95	33.92	26.45	159	0.50
112	9.17	33.39	250	7.53	34.09	26.65	140	0.58
140	8.73	33.73	300	7.10	34.15	26.76	129	0.65
167	8.28	33.81	400	6.23	34.18	26.90	116	0.77
222	7.78	34.01	500	5.70	34.28	27.04	103	0.89
287	7.22	34.14	600	5.25	34.34	27.14	93	0.99
401	6.22	34.18	700	(4.82)	(34.38)	(27.23)	(85)	(1.09)
540	5.52	34.31						
691	4.85	34.38						

77.55

HORIZON; June 11, 1954; 0326 GCT; 34°54.5'N, 121°13'W; sounding, 310 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 42°.

0	11.77	33.44	0	11.77	33.44	25.44	255	0.00
10	11.75	33.45	10	11.75	33.45	25.45	254	0.02
25	11.64	33.59	20	11.73	33.55	25.53	246	0.05
33	11.26	33.53	30	11.47	33.59	25.61	239	0.08
40	10.20	33.46	50	9.88	33.53	25.85	216	0.12
48	9.94	33.51	75	8.99	33.74	26.15	187	0.17
56	9.60	33.57	100	8.79	33.86	26.28	175	0.22
64	9.48	33.58	150	8.31	33.97	26.44	160	0.30
71	9.10	33.73	200	7.69	34.11	26.64	141	0.38
79	8.93	33.75	250	7.14	34.13	26.74	131	0.45
93	8.86	33.84	300	6.85	34.14	26.78	128	0.52
111	8.67	33.89	400	6.56	34.24	26.90	116	0.64
123	8.55	33.95						
151	8.30	33.97						
219	7.46	34.13						
294	6.88	34.14						
404	6.56	34.25						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; June 14, 1954; 0722 GCT; 34°20'N, 120°48.5'W; sounding, 440 fm; wind, 320°, force 6; weather, cloudy; sea, high; wire angle, 10°. 80.55

0	11.90	33.66	0	11.90	33.66	25.59	240	0.00
10	11.90	33.66	10	11.90	33.66	25.59	240	0.02
30	11.20	33.77	20	11.82	33.69	25.63	237	0.05
45	10.79	33.70	30	11.20	33.77	25.80	221	0.07
61	9.63	33.82	50	10.53	33.71	25.87	214	0.11
71	9.48	33.86	75	9.42	33.88	26.19	184	0.16
81	9.32	33.94	100	9.15	34.16	26.46	158	0.21
97	9.17	34.16	150	8.82	34.16	26.51	153	0.29
107	9.12	34.16	200	8.49	34.20	26.59	146	0.36
122	8.99	34.14	250	8.05	34.22	26.67	138	0.44
150	8.82	34.16	300	7.79	34.24	26.73	132	0.50
180	8.66	34.18	400	6.94	34.27	26.87	119	0.64
238	8.14	34.22	500	6.14	34.28	26.99	108	0.76
305	7.76	34.24	600	5.54	34.31	27.09	98	0.87
421	6.76	34.27	700	5.14	34.35	27.17	91	0.97
560	5.76	34.30						
700	5.14	34.35						

HORIZON; June 13, 1954; 1358 GCT; 33°14'N, 123°16'W; sounding, 2300 fm; wind, 320°, force 5; weather, cloudy; sea, high; wire angle, 26°. 80.90

0	15.38	33.19	0	15.38	33.19	24.52	342	0.00
10	15.34	33.17	10	15.34	33.17	24.51	343	0.03
24	15.38	33.18	20	15.38	33.18	24.51	343	0.07
52	15.32	33.16	30	15.38	33.18	24.51	343	0.10
61	15.00	33.15	50	15.33	33.16	24.50	344	0.17
70	14.46	33.11	75	14.05	33.09	24.72	323	0.26
84	13.26	33.08	100	12.04	33.14	25.16	281	0.33
103	11.80	33.17	150	9.46	33.54	25.92	209	0.46
126	10.31	33.28	200	8.62	33.90	26.34	169	0.55
152	9.41	33.58	250	7.99	34.02	26.53	151	0.64
200	8.62	33.90	300	7.30	34.08	26.67	138	0.71
269	7.75	34.05	400	6.26	34.17	26.89	117	0.85
364	6.52	34.14	500	5.75	34.24	27.01	106	0.96
490	5.80	34.23	600	5.32	34.38	27.17	91	1.07
664	5.04	34.42	700	4.88	34.43	27.26	82	1.16
885	4.16	34.45	800	4.46	34.44	27.31	77	1.25
1187	3.42	34.53	1000	3.82	34.48	27.41	68	1.41

HORIZON; June 14, 1954; 1310 GCT; 34°15'N, 119°59'W; sounding, 320 fm; wind, 320°, force 2; weather, overcast; sea, very rough; wire angle, 14°. 82.47

0	14.26	33.51	0	14.26	33.51	25.00	297	0.00
10	12.58	33.57	10	12.58	33.57	25.39	260	0.03
30	10.19	33.71	20	10.73	33.67	25.81	220	0.05
40	9.80	33.77	30	10.19	33.71	25.93	208	0.07
50	9.45	33.89	50	9.45	33.89	26.20	183	0.11
60	9.36	33.91	75	9.22	34.02	26.34	169	0.16
70	9.26	34.04	100	8.98	34.06	26.41	163	0.20
81	9.16	34.01	150	8.67	34.13	26.51	153	0.28
90	9.08	34.04	200	8.12	34.19	26.64	141	0.35
100	8.98	34.06	250	7.67	34.21	26.72	133	0.42
119	8.85	34.06	300	7.33	34.23	26.79	127	0.49
145	8.70	34.13	400	6.76	34.27	26.90	116	0.62
163	8.54	34.14	500	6.42	34.29	26.96	110	0.74
202	8.10	34.19						
280	7.46	34.22						
383	6.84	34.27						
506	6.40	34.29						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

83.43

HORIZON; June 14, 1954; 1608 GCT; 34°08.5'N, 119°34'W; sounding, 130 fm; wind, 320°, force 2; weather, partly cloudy; sea, very rough; wire angle, 08°.

0	14.30	33.68	0	14.30	33.68	25.12	285	0.00
10	13.88	33.57	10	13.88	33.57	25.13	284	0.03
26	12.28	33.64	20	12.66	33.63	25.42	257	0.06
36	11.79	33.58	30	12.07	33.63	25.53	246	0.08
46	11.02	33.59	50	10.72	33.61	25.76	224	0.13
56	10.38	33.66	75	9.66	33.80	26.09	193	0.18
65	10.02	33.70	100	9.31	33.97	26.28	175	0.23
75	9.66	33.80	150	8.86	34.15	26.50	154	0.31
95	9.35	33.95	200	8.51	34.20	26.59	146	0.39
110	9.24	34.00						
140	8.96	34.11						
169	8.70	34.20						
202	8.50	34.20						

83.51

HORIZON; June 15, 1954; 1709 GCT; 33°52'N, 120°08.5'W; sounding, 63 fm; wind, 300°, force 4; weather, fog; sea, rough; wire angle, 18°.

0	12.72	33.59	0	12.72	33.59	25.38	260	0.00
10	11.62	33.63	10	11.62	33.63	25.62	238	0.02
20	11.30	33.66	20	11.30	33.66	25.70	230	0.05
30	11.01	33.68	30	11.01	33.68	25.77	223	0.07
40	9.98	33.78	50	9.48	33.87	26.18	184	0.11
50	9.48	33.87	75	9.04	34.07	26.40	164	0.16
60	9.17	34.02						
70	9.06	34.07						
80	9.02	34.07						
89	8.92	34.13						

83.60

HORIZON; June 15, 1954; 2152 GCT; 33°34'N, 120°45'W; sounding, 860 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 14°.

0	13.86	33.32	0	13.86	33.32	24.94	302	0.00
10	13.85	33.32	10	13.85	33.32	24.94	302	0.03
30	13.79	33.35	20	13.86	33.34	24.95	301	0.06
45	13.64	33.34	30	13.79	33.35	24.98	299	0.09
55	13.32	33.30	50	13.54	33.32	25.00	297	0.15
65	11.20	33.27	75	11.16	33.33	25.47	252	0.22
75	11.16	33.33	100	9.30	33.64	26.03	199	0.28
85	9.78	33.53	150	8.60	33.95	26.38	166	0.37
100	9.30	33.64	200	7.99	34.04	26.54	150	0.45
110	9.07	33.73	250	7.43	34.12	26.69	136	0.52
134	8.79	33.89	300	7.03	34.19	26.80	126	0.59
163	8.43	33.98	400	6.46	34.25	26.92	114	0.71
217	7.80	34.07	500	5.90	34.29	27.03	104	0.83
280	7.16	34.17	600	5.30	34.30	27.11	96	0.94
393	6.50	34.38u						
522	5.74	34.28						
660	5.02	34.33						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; June 16, 1954; 0657 GCT; 32°55.5'N, 122°08'W; sounding, 2350 fm; wind, 320°, force 6; weather, overcast; sea, high; wire angle, 15°. 83.80

0	14.53	33.06	0	14.53	33.06	24.60	335	0.00
10	14.54	33.12	10	14.54	33.12	24.64	331	0.03
30	14.36	33.30u	20	14.45	33.13	24.77	319	0.07
45	14.24	33.13	30	14.36	33.13	24.82	314	0.10
55	14.20	33.13	50	14.22	33.13	24.72	323	0.16
65	-	33.12	75	13.06	33.07	24.91	305	0.24
75	13.06	33.07	100	10.78	33.11	25.36	262	0.31
85	11.76	32.97	150	10.00	33.68	25.94	207	0.43
100	10.78	33.11	200	8.21	33.94	26.43	161	0.52
109	10.10	33.28	250	7.59	34.04	26.60	145	0.60
133	9.25	33.48	300	7.03	34.09	26.72	133	0.67
160	8.88	33.75	400	6.13	34.18	26.91	115	0.80
211	8.02	33.98	500	5.67	34.26	27.03	104	0.92
271	7.39	34.06	600	5.24	34.32	27.13	94	1.02
381	6.22	34.16						
507	5.65	34.27						
640	5.08	34.34						

HORIZON; June 14, 1954; 2022 GCT; 34°00'N, 119°04.5'W; sounding, 280 fm; wind, 240°, force 2; weather, partly cloudy; sea, rough; wire angle, 15°. 85.39

0	17.75	33.41	0	17.75	33.41	24.14	379	0.00
10	15.66	33.48	10	15.66	33.48	24.68	327	0.04
25	12.10	33.54	20	13.55	33.54	25.17	280	0.07
35	10.40	33.44	30	11.06	33.51	25.63	237	0.09
45	10.04	33.56	50	9.84	33.62	25.92	209	0.14
55	9.67	33.67	75	9.52	33.95	26.23	180	0.18
65	9.69	33.78	100	9.36	33.91	26.23	180	0.23
75	9.52	33.95	150	9.07	34.15	26.46	158	0.32
94	9.41	33.91	200	8.73	34.21	26.56	148	0.39
109	9.28	33.94						
138	9.14	34.05						
167	8.96	34.22						
201	8.72	34.21						

HORIZON; June 15, 1954; 0143 GCT; 33°47'N, 119°31'W; sounding, 1030 fm; wind, 320°, force 2; weather, clear; sea, rough; wire angle, 15°. 85.45

0	16.78	33.46	0	16.78	33.46	24.41	353	0.00
10	13.22	33.48	10	13.22	33.48	25.19	279	0.03
30	9.73	33.65	20	10.21	33.60	25.84	217	0.06
40	9.58	33.71	30	9.73	33.65	25.96	205	0.08
50	9.44	33.80	50	9.44	33.80	26.13	189	0.12
60	9.44	33.87	75	9.06	33.87	26.25	178	0.16
70	9.08	33.86	100	8.80	34.01	26.40	164	0.21
79	9.04	33.89	150	8.69	34.10	26.48	156	0.29
89	8.92	34.00	200	8.21	34.21	26.64	141	0.36
98	8.80	34.01	250	7.86	34.23	26.71	134	0.43
121	8.80	34.07	300	7.55	34.24	26.76	129	0.50
149	8.70	34.10	400	6.88	34.33	26.93	114	0.63
195	8.25	34.21	500	6.25	34.40	27.07	100	0.74
251	7.86	34.23	600	(5.75)	(34.44)	(27.17)	(91)	(0.84)
350	7.22	34.27						
465	6.46	34.38a)						
581	5.84	34.44a)						

a) Salinity samples at 465 and 581 meters appear to have been reversed; they are assumed to be listed in correct order.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

85.55 HORIZON; June 15, 1954; 0651 GCT; 33°25.5'N, 120°13.5'W; sounding, 660 fm; wind, 300°, force 6; weather, clear; sea, high; wire angle, 16°.

0	12.70	33.55	0	12.70	33.55	25.35	263	0.00
10	12.70	33.55	10	12.70	33.55	25.35	263	0.03
30	12.68	33.54	20	12.73	33.54	25.34	264	0.05
45	12.03	33.54	30	12.68	33.54	25.35	263	0.08
60	10.04	33.51	50	11.53	33.53	25.56	243	0.13
70	9.63	33.58	75	9.40	33.68	26.04	198	0.19
80	9.22	33.73	100	8.98	33.82	26.22	181	0.23
95	9.04	33.80	150	8.32	34.03	26.49	155	0.32
105	8.91	-						
120	8.67	33.87						
149	8.32	34.03						
178	8.16	34.04						

87.40 HORIZON; June 17, 1954; 1714 GCT; 33°40.5'N, 118°59'W; sounding, 465 fm; wind, 320°, force 2; weather, overcast; sea, rough; wire angle, 10°.

0	17.24	33.44	0	17.24	33.44	24.28	365	0.00
10	14.24	33.39	10	14.24	33.39	24.91	305	0.03
30	10.68	33.51	20	11.45	33.43	25.49	250	0.06
40	10.00	33.59	30	10.68	33.51	25.69	231	0.08
50	9.77	33.64	50	9.77	33.64	25.95	206	0.13
60	9.78	33.71	75	9.49	33.86	26.17	185	0.18
70	9.60	33.84	100	9.06	33.92	26.28	175	0.22
80	9.38	33.87	150	8.80	34.09	26.46	158	0.31
90	9.28	33.89	200	8.63	34.22	26.59	146	0.39
100	9.06	33.92	250	8.33	34.27	26.67	138	0.46
125	8.78	33.96	300	7.15	34.27	26.84	122	0.53
154	8.80	34.11	400	6.49	34.28	26.94	112	0.65
201	8.62	34.22	500	6.11	34.32	27.02	105	0.76
258	8.28	34.27	600	5.53	34.38	27.14	93	0.87
320	6.88	34.27						
479	6.24	34.31						
605	5.52	34.38						

87.50 HORIZON; June 17, 1954; 1205 GCT; 33°20.5'N, 119°40.5'W; sounding, 45 fm; wind, 320°, force 5; weather, clear; sea, high; wire angle, 08°.

0	14.01	33.53	0	14.01	33.53	25.07	290	0.00
10	13.73	33.54	10	13.73	33.54	25.14	283	0.03
20	9.92	33.69	20	9.92	33.69	25.96	205	0.05
30	9.39	33.79	30	9.39	33.79	26.13	189	0.07
41	9.17	33.86	50	8.73	33.98	26.38	166	0.11
51	8.70	33.99						
62	8.52	34.02						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; June 17, 1954; 0624 GCT; 33°00'N, 120°21.5'W; sounding, 360 fm; wind, 330°, force 6; weather, clear; sea, very high; wire angle, 22°. 87.60

0	13.75	33.39	0	13.75	33.39	25.02	295	0.00
10	13.74	33.40	10	13.74	33.40	25.03	294	0.03
30	13.74	33.43	20	13.74	33.41	25.03	294	0.06
44	13.35	33.47	30	13.74	33.43	25.05	292	0.09
53	13.14	33.44	50	13.24	33.46	25.17	280	0.15
63	12.12	33.39	75	10.48	33.45	25.68	232	0.21
73	10.67	33.44	100	9.13	33.62	26.04	198	0.26
82	9.85	33.46	150	8.46	34.01	26.45	159	0.36
96	9.22	33.57	200	7.87	34.13	26.63	142	0.43
106	9.02	33.68	250	7.56	34.21	26.74	131	0.50
129	8.72	33.86	300	7.24	34.24	26.81	125	0.57
156	8.38	34.04	400	6.56	34.25	26.91	115	0.69
207	7.81	34.14	500	5.92	34.28	27.02	105	0.81
265	7.47	34.23	600	5.30	34.37	27.16	92	0.91
373	6.74	34.25						
498	5.93	34.28						
632	5.14	34.40						

HORIZON; June 16, 1954; 2033 GCT; 32°14.5'N, 121°43'W; sounding, 2050 fm; wind, 320°, force 6; weather, partly cloudy; sea, high; wire angle, 20°. 87.80

0	15.13	33.19	0	15.13	33.19	24.57	338	0.00
10	15.14	33.13	10	15.14	33.13	24.52	342	0.03
30	15.02	33.16	20	15.10	33.14	24.54	340	0.07
43	14.40	33.17	30	15.02	33.16	24.57	338	0.10
53	12.94	33.16	50	13.27	33.16	24.94	302	0.17
62	12.72	33.22	75	12.43	33.28	25.19	279	0.24
71	12.57	33.28	100	10.12	33.28	25.61	239	0.30
81	12.06	33.26	150	8.66	33.75	26.21	182	0.41
95	10.41	33.28	200	8.02	33.87	26.41	163	0.50
104	9.92	33.28	250	7.54	34.03	26.60	145	0.58
127	8.92	33.57	300	7.09	34.10	26.72	133	0.65
155	8.60	33.77	400	6.40	34.17	26.87	119	0.78
207	7.96	33.89	500	5.94	34.32	27.04	103	0.90
269	7.37	34.07	600	5.43	34.35	27.13	94	1.00
379	6.52	34.14						
507	5.90	34.32						
644	5.23	34.36						

HORIZON; June 18, 1954; 0606 GCT; 33°28'N, 117°47.5'W; sounding, 310 fm; wind, 330°, force 2; weather, clear; sea, moderate; wire angle, 08°. 90.28

0	17.78	33.39	0	17.78	33.39	24.11	382	0.00
10	16.56	33.39	10	16.56	33.39	24.40	354	0.04
31	11.60	33.37	20	13.07	33.38	25.15	282	0.07
42	10.89	33.43	30	11.70	33.37	25.40	259	0.10
52	10.24	33.49	50	10.35	33.47	25.72	228	0.14
62	9.96	33.62	75	9.68	33.77	26.07	195	0.20
72	9.75	33.76	100	9.47	33.84	26.16	187	0.25
82	9.58	33.78a)	150	8.99	34.03	26.38	165	0.34
92	9.52	33.82a)	200	8.78	34.12	26.48	156	0.42
102	9.46	33.84	250	8.47	34.20	26.60	145	0.50
120	9.14	33.96a)	300	8.06	34.25	26.70	135	0.57
145	9.01	34.01a)	400	7.24	34.28	26.84	122	0.70
165	8.91	34.08	500	6.39	34.30	26.97	110	0.83
202	8.78	34.13						
279	8.24	34.23						
382	7.38	34.28						
505	6.36	34.30						

a) Salinity samples at 82 and 92 meters appear to have been reversed, and also samples at 120 and 145 meters; they are assumed to be listed in correct order.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

90.37

HORIZON; June 18, 1954; 1128 GCT; 33°11'N, 118°23.5'W; sounding, 660 fm; wind, 180°, force 2; weather, overcast; sea, rough; wire angle, 10°.

0	17.57	33.41	0	17.57	33.41	24.18	375	0.00
10	17.30	33.40	10	17.30	33.40	24.24	369	0.04
30	11.96	33.33	20	13.36	33.34	25.06	291	0.07
40	10.90	33.35	30	11.96	33.33	25.32	266	0.10
50	10.00	33.51	50	10.00	33.51	25.81	220	0.15
60	9.65	33.48	75	9.51	33.67	26.02	200	0.20
70	9.75	33.65	100	9.17	33.82	26.19	184	0.25
80	9.36	33.69	150	8.51	33.98	26.42	162	0.34
91	9.28	33.74	200	8.03	34.07	26.56	148	0.42
101	9.16	33.84	250	8.14	34.23	26.67	138	0.49
125	9.00	33.95	300	7.97	34.23	26.69	136	0.56
155	8.40	33.98	400	7.08	34.23	26.82	124	0.69
203	8.02	34.10	500	6.13	34.33	27.03	104	0.82
260	8.14	34.23	600	5.70	34.34	27.09	98	0.92
362	7.48	34.22						
480	6.26	34.33						
607	5.69	34.34						

90.55

HORIZON; June 18, 1954; 2100 GCT; 32°35'N, 119°37'W; sounding, 620 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 08°.

0	13.98	33.35	0	13.98	33.35	24.94	302	0.00
10	13.94	33.34	10	13.94	33.34	24.94	302	0.03
30	13.05	33.32	20	13.60	33.32	24.99	298	0.06
40	11.02	33.27	30	13.05	33.32	25.10	287	0.09
50	10.12	33.46	50	10.12	33.46	25.75	225	0.14
61	9.81	33.54	75	9.60	33.64	25.98	204	0.20
71	9.68	33.63	100	9.16	33.76	26.14	188	0.24
82	9.46	33.66	150	8.46	33.96	26.41	163	0.33
102	9.12	33.78	200	7.89	34.12	26.62	143	0.41
126	8.73	33.90	250	7.50	34.21	26.75	130	0.48
156	8.40	33.97	300	7.14	34.25	26.83	123	0.55
205	7.82	34.13	400	6.40	34.31	26.98	109	0.67
275	7.34	34.23	500	5.89	34.36	27.08	99	0.78
377	6.55	34.30	600	5.56	34.34	27.11	96	0.88
505	5.88	34.36	700	5.25	34.35	27.15	92	0.98
659	5.40	34.34	800	4.72	34.42	27.27	81	1.08
816	4.62	34.43						

90.70

HORIZON; June 19, 1954; 0409 GCT; 32°04.5'N, 120°36.5'W; sounding, 2150 fm; wind, 320°, force 6; weather, clear; sea, high; wire angle, 10°.

0	14.59	33.31	0	14.59	33.31	24.78	318	0.00
10	14.60	33.33	10	14.60	33.33	24.79	317	0.03
25	14.60	33.27	20	14.60	33.28	24.75	320	0.06
55	13.34	33.37	30	14.60	33.28	24.75	320	0.10
65	12.90	33.37	50	13.76	33.36	24.99	298	0.16
75	12.15	33.35	75	12.15	33.35	25.30	268	0.23
90	10.82	33.46	100	10.32	33.47	25.72	228	0.29
110	9.94	33.48	150	8.91	33.85	26.25	178	0.39
136	9.10	33.77	200	8.09	34.01	26.50	154	0.48
165	8.72	33.91	250	7.68	34.10	26.64	141	0.55
219	7.89	34.05	300	7.44	34.16	26.72	133	0.62
298	7.48	34.16	400	6.50	34.23	26.90	116	0.76
406	6.48	34.23	500	5.98	34.31	27.03	104	0.87
549	5.74	34.34	600	5.45	34.36	27.14	93	0.98
742	4.70	34.39	700	4.90	34.38	27.22	86	1.07
983	3.94	34.47	800	4.51	34.41	27.28	80	1.16
1298	3.18	34.56	1000	3.91	34.48	27.40	69	1.33

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

93.30

HORIZON; June 20, 1954; 2323 GCT; 32°53'N, 117°32'W; sounding, 450 fm; wind, 180°, force 3; weather, overcast; sea, rough; wire angle, 09°.

0	18.4	33.40	0	18.4	33.40	23.97	395	0.00
10	17.78	33.41	10	17.78	33.41	24.13	380	0.04
30	12.09	33.40	20	14.18	33.40	24.93	303	0.07
41	11.52	33.40	30	12.09	33.40	25.35	263	0.10
51	10.56	33.41	50	10.56	33.41	25.64	236	0.15
61	10.52	33.57	75	9.75	33.73	26.02	200	0.21
72	9.90	33.72	100	9.25	33.90	26.24	179	0.25
82	9.54	33.74	150	8.98	34.05	26.40	164	0.34
92	9.37	33.87	200	8.66	34.23	26.59	146	0.42
102	9.22	33.91	250	8.46	34.29	26.67	138	0.49
126	8.99	34.04	300	8.10	34.30	26.73	132	0.56
155	8.98	34.05	400	7.17	34.31	26.87	119	0.69
205	8.64	34.24	500	6.60	34.34	26.97	110	0.82
264	8.42	34.30	600	5.91	34.37	27.09	98	0.93
367	7.40	34.31						
488	6.70	34.33						
616	5.82	34.38						

93.50

HORIZON; June 20, 1954; 1419 GCT; 32°33.5'N, 118°58.5'W; sounding, 602 fm; wind, 320°, force 2; weather, clear; sea, very rough; wire angle, 15°.

0	14.4	33.47	0	14.4	33.47	24.94	302	0.00
10	14.37	33.41	10	14.37	33.41	24.90	306	0.03
30	10.05	33.49	20	10.94	33.43	25.59	240	0.06
46	9.74	33.65	30	10.05	33.49	25.79	222	0.08
56	9.56	33.73	50	9.66	33.68	26.00	202	0.12
65	9.44	33.86	75	9.39	33.91	26.22	181	0.17
75	9.39	33.91	100	9.14	34.06	26.38	166	0.22
85	9.36	33.96	150	8.77	34.16	26.52	152	0.30
100	9.14	34.06	200	8.16	34.21	26.65	140	0.37
110	9.02	34.11	250	7.57	34.25	26.77	128	0.44
133	8.92	34.15	300	7.09	34.26	26.84	122	0.50
162	8.62	34.17	400	6.44	34.26	26.93	113	0.63
214	7.97	34.22	500	5.99	34.34	27.05	102	0.74
275	7.32	34.26	600	5.66	34.33	27.09	98	0.85
385	6.52	34.26						
509	5.96	34.34						
642	5.54	34.33						

93.90

HORIZON; June 19, 1954; 1750 GCT; 30°49'N, 121°34.5'W; sounding, 2410 fm; wind, 320°, force 6; weather, partly cloudy; sea, high; wire angle, 10°.

0	15.3	33.24	0	15.3	33.24	24.57	338	0.00
10	15.17	33.19	10	15.17	33.19	24.56	339	0.03
30	15.16	33.24	20	15.16	33.22	24.59	336	0.07
45	15.12	33.22	30	15.16	33.24	24.60	335	0.10
55	14.74	33.19	50	15.06	33.21	24.60	335	0.17
66	13.06	33.10	75	12.32	33.12	25.09	288	0.25
76	12.25	33.12	100	10.60	33.28	25.53	246	0.31
86	11.40	33.13	150	8.78	33.76	26.20	183	0.42
101	10.54	33.30	200	8.02	33.98	26.49	155	0.51
110	9.98	33.39	250	7.82	34.05	26.58	146	0.58
135	9.04	33.69	300	6.88	34.13	26.77	128	0.66
165	8.54	33.82	400	6.67	34.30	26.93	113	0.78
218	7.78	34.02	500	6.10	34.33	27.03	104	0.90
281	6.98	34.09	600	5.50	34.39	27.15	92	1.00
393	6.70	34.30						
523	5.92	34.34						
659	5.24	34.42						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

97.40

CREST; June 22, 1954; 1909 GCT; 31°51'N, 117°49.5'W; sounding, 250 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 10°.

0	17.5	33.49	0	17.5	33.49	24.26	367	0.00
10	17.22	33.72r	10	17.22	33.49	24.32	361	0.04
15	16.35	33.49	20	15.92	33.48	24.62	333	0.07
20	15.92	33.48	30	12.80	33.35	25.18	280	0.10
25	13.43	33.35	50	10.72	33.47	25.66	234	0.15
30	12.80	33.35	75	9.96	33.67	25.94	207	0.21
40	11.92	33.39	100	9.41	33.84	26.17	185	0.26
50	10.72	33.47	150	8.55	34.03	26.45	159	0.35
65	10.14	33.57	200	8.16	34.15	26.60	145	0.42
79	9.88	33.71	250	8.02	34.29	26.73	132	0.49
99	9.44	-	300	7.78	34.36	26.82	124	0.56
115	9.06	33.91	400	6.81	34.38	26.98	109	0.68
160	8.45	-						
199	8.17	34.15						
250	8.02	34.29						
329	7.57	34.37						
407	6.76	34.38						

97.60

CREST; June 22, 1954; 0920 GCT; 31°15.5'N, 119°09'W; sounding, 600 fm; wind, 300°, force 4; weather, overcast; sea, rough; wire angle, 05°.

0	16.8	33.40	0	16.8	33.40	24.35	359	0.00
10	16.30	33.33	10	16.30	33.33	24.42	352	0.04
30	16.19	33.39	20	16.20	33.37	24.47	347	0.07
45	14.52	33.27	30	16.19	33.39	24.49	345	0.10
55	13.12	33.14	50	13.70	33.14	24.83	313	0.17
66	12.43	33.22	75	11.75	33.31	25.34	264	0.24
76	11.70	33.31	100	9.79	33.43	25.78	222	0.30
86	10.40	33.30	150	8.91	33.80	26.21	182	0.41
100	9.79	33.43	200	7.90	33.98	26.51	153	0.49
111	9.42	33.55	250	7.21	34.08	26.69	136	0.57
136	9.20	-	300	6.74	34.15	26.81	125	0.63
166	8.44	33.87	400	6.45	34.24	26.92	114	0.76
219	7.66	34.02	500	5.95	34.35	27.07	100	0.87
283	6.84	34.13						
398	6.46	34.24						
528	5.80	34.36						
564	5.08	34.38						

97.80

CREST; June 21, 1954; 2327 GCT; 30°35.5'N, 120°31'W; sounding, 2150 fm; wind, 290°, force 2; weather, overcast; sea, rough; wire angle, 08°.

0	16.6	33.39	0	16.6	33.39	24.39	355	0.00
10	16.38	33.44	10	16.38	33.44	24.48	346	0.04
30	16.30	33.49	20	16.30	33.47	24.52	342	0.07
45	16.28	33.49	30	16.30	33.49	24.54	340	0.10
55	12.97	33.30	50	16.27	33.49	24.54	340	0.18
65	11.38	33.33	75	10.50	33.40	25.64	236	0.26
75	10.50	33.40	100	9.51	33.61	25.97	204	0.30
85	10.06	33.47	150	8.60	34.02	26.43	161	0.39
100	9.51	33.61	200	7.83	34.05	26.57	148	0.47
109	9.26	33.71	250	7.35	34.10	26.68	137	0.54
133	8.90	-	300	6.94	34.18	26.80	126	0.61
162	8.36	34.04	400	6.20	34.24	26.95	111	0.74
214	7.68	34.05	500	5.75	34.33	27.08	99	0.85
277	7.14	34.16	600	5.29	34.37	27.16	92	0.95
387	6.28	34.23						
511	5.69	34.34						
646	5.08	34.38						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} T_3 cm/g	dyn. m

CREST; June 20, 1954; 0417 GCT; 31°42'N, 116°43.5'W; sounding, 53 fm; wind, 330°, force 2; weather, overcast; sea, slight; wire angle, 00°. 100.29

0	16.8	33.51	0	16.8	33.51	24.44	350	0.00
5	16.70	33.57	10	15.76	33.56	24.72	323	0.03
10	15.76	33.56	20	13.24	33.49	25.20	278	0.06
15	13.92	33.46	30	11.60	33.51	25.53	246	0.09
20	13.24	33.49	50	10.04	33.54	25.83	218	0.14
45	10.19	33.53	75	9.60	33.65	25.99	202	0.19
71	9.70	33.63						
81	9.48	33.69						

CREST; June 20, 1954; 1500, 1531 GCT; 31°04.5'N, 118°07'W; sounding, 970 fm; wind, 260°, force 2; weather, overcast; sea, rough; wire angle, 07°, 09°. 100.50

0	16.4	33.50u	0	16.4	(33.33)	(24.39)	(354)	(0.00)
10	16.31	33.33	10	16.31	33.33	24.41	353	0.04
25	16.30	33.31	20	16.30	33.32	24.41	353	0.07
55	13.69	33.16	30	16.30	33.29	24.39	355	0.11
65	12.88	33.12	50	14.32	33.19	24.74	321	0.17
76	12.20	33.16	75	12.28	33.16	25.13	284	0.25
91	10.90	33.12	100	10.59	33.21	25.48	251	0.32
111	10.30	33.42	150	8.70	33.70	26.17	185	0.43
135	9.04	33.58	200	8.18	33.98	26.47	157	0.52
165	8.50	33.86	250	7.71	34.10	26.63	142	0.59
217	7.96	34.03	300	7.24	34.21	26.78	128	0.66
293	7.26	34.22	400	6.70	34.29	26.92	114	0.79
			500	6.08	34.32	27.03	104	0.90
219a)	8.04	34.08	600	5.49	34.35	27.12	95	1.01
303	7.24	34.20	700	4.98	34.39	27.22	86	1.11
410	6.65	34.29	800	4.60	34.41	27.27	81	1.20
554	5.74	34.34	1000	4.02	34.45	27.37	72	1.37
748	4.79	34.40						
986	4.06	34.45						
1300	3.24	34.58						

CREST; June 21, 1954; 0229 GCT; 30°21'N, 119°27'W; sounding, 2000+ fm; wind, 300°, force 1; weather, overcast; sea, rough; wire angle, 08°. 100.70

0	16.8	33.42	0	16.8	33.42	24.37	357	0.00
10	16.31	33.33	10	16.31	33.33	24.41	353	0.04
25	16.24	33.40	20	16.23	33.39	24.48	346	0.07
55	13.63	33.08	30	16.22	33.40	24.49	345	0.11
65	12.59	33.09	50	14.40	33.09	24.65	330	0.17
75	12.12	33.10	75	12.12	33.10	25.11	286	0.25
89	11.54	33.33	100	11.00	33.39	25.54	245	0.32
109	10.45	33.42	150	9.18	33.80	26.17	185	0.43
134	9.38	-	200	8.28	33.99	26.46	158	0.51
162	9.06	33.88	250	7.43	34.04	26.62	143	0.59
215	7.95	34.01	300	6.90	34.07	26.72	133	0.66
294	6.96	34.06	400	6.11	34.21	26.94	112	0.79
403	6.10	34.21	500	5.60	34.28	27.06	101	0.90
545	5.41	34.31	600	5.21	34.35	27.16	92	1.00
737	4.76	34.43	700	4.87	34.41	27.24	84	1.10
974	4.06	34.53	800	4.55	34.47	27.33	75	1.19
1281	3.30	34.56	1000	3.99	34.53	27.44	65	1.35

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m
100.90	CREST; June 21, 1954; 1234 GCT; 29°40.5'N, 120°47'W; sounding, 2200 fm; wind, 220°, force 2; weather, overcast; sea, rough; wire angle, 16°.							
0	16.1	33.30	0	16.1	33.30	24.44	350	0.00
10	16.04	33.30	10	16.04	33.30	24.45	349	0.04
25	15.96	33.29	20	16.00	33.29	24.45	349	0.07
54	15.08	33.18	30	15.89	33.27	24.46	348	0.10
63	14.72	33.20	50	15.21	33.19	24.55	340	0.17
74	13.72	33.10	75	13.67	33.09	24.80	316	0.26
87	12.95	33.03	100	11.97	33.07	25.12	285	0.33
106	11.32	33.09	150	9.41	33.23	25.69	231	0.46
130	9.76	-	200	8.60	33.91	26.35	168	0.56
157	9.31	33.25	250	7.85	34.00	26.53	151	0.64
207	8.50	33.94	300	7.20	34.05	26.66	139	0.72
384	6.42	34.13	400	6.30	34.15	26.86	120	0.85
522	5.59	34.30	500	5.70	34.28	27.04	103	0.97
708	4.80	34.38	600	5.22	34.36	27.16	92	1.07
940	4.02	34.35u	700	4.81	34.38	27.23	85	1.17
1250	3.24	34.54	800	4.48	34.37	27.26	82	1.26
			1000	3.86	34.45	27.39	70	1.43
103.30	CREST; June 19, 1954; 2309 GCT; 31°05.5'N, 116°25'W; sounding, 38 fm; wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 02°.							
0	15.7	33.44	0	15.7	33.44	24.64	331	0.00
5	15.08	33.47	10	13.37	33.49	25.17	280	0.03
10	13.37	33.49	20	11.28	33.46	25.55	244	0.06
15	11.40	33.45	30	10.40	33.47	25.71	229	0.08
20	11.28	33.46	50	9.76	33.51	25.85	216	0.12
26	10.82	33.48						
36	9.94	33.45						
51	9.74	33.51						
61	9.64	33.55						
103.40	CREST; June 19, 1954; 1755 GCT; 30°45.5'N, 117°05.5'W; sounding, 950 fm; wind, 340°, force 1; weather, cloudy; sea, moderate; wire angle, 01°.							
0	16.9	33.49	0	16.9	33.49	24.40	354	0.00
10	16.79	33.49	10	16.79	33.49	24.43	351	0.04
30	16.03	33.55	20	16.68	33.51	24.47	347	0.07
45	13.18	33.32	30	16.03	33.55	24.65	330	0.10
56	11.28	33.22	50	12.17	33.25	25.22	276	0.16
66	11.23	33.47	75	10.86	33.52	25.67	233	0.23
77	10.76	33.53	100	9.99	33.65	25.92	209	0.28
88	10.44	33.60	150	8.39	33.97	26.43	161	0.38
103	9.82	33.66	200	8.12	34.08	26.55	149	0.46
113	9.32	33.83	250	7.93	34.21	26.69	136	0.53
138	8.58	33.93	300	7.41	34.28	26.82	124	0.60
168	8.18	34.02	400	6.80	34.31	26.92	114	0.72
222	8.12	34.13	500	6.11	34.39	27.08	99	0.84
287	7.54	34.27	600	5.51	34.41	27.17	91	0.94
401	6.80	34.31						
531	5.92	34.40						
667	5.20	34.42						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; June 19, 1954; 0722 GCT; 30°04.5'N, 118°24'W; sounding, 1900 fm; wind, 320°, force 4; weather, clear; sea, very rough; wire angle, 15°. 103.60

0	16.7	33.21	0	16.7	33.21	24.23	370	0.00
10	16.51	33.27	10	16.51	33.27	24.32	361	0.04
30	16.50	33.28	20	16.50	33.28	24.33	360	0.07
45	16.43	33.35	30	16.50	33.28	24.33	360	0.11
59	14.81	33.30	50	16.21	33.34	24.44	350	0.18
68	13.85	33.13	75	13.58	33.13	24.85	311	0.26
79	13.45	33.13	100	12.77	33.23	25.09	288	0.34
94	12.83	33.09	150	10.39	33.58	25.80	221	0.47
103	12.72	33.26	200	9.43	33.96	26.26	177	0.57
117	11.50	33.28	250	8.89	34.17	26.51	153	0.65
146	10.52	33.55	300	8.25	34.23	26.65	140	0.73
175	9.70	33.78	400	7.20	34.36	26.91	115	0.86
233	9.10	34.14	500	6.46	34.39	27.03	104	0.98
301	8.23	34.23	600	5.80	34.42	27.14	93	1.08
417	7.09	34.37	700	(5.20)	(34.45)	(27.24)	(84)	(1.18)
554	6.10	34.40						
693	5.24	34.45						

CREST; June 18, 1954; 2125 GCT; 29°25.5'N, 119°46'W; sounding, 2000+ fm; wind, 330°, force 5; weather, partly cloudy; sea, very rough; wire angle, 20°. 103.80

0	17.0	33.28	0	17.0	33.28	24.22	371	0.00
10	16.86	33.28	10	16.86	33.28	24.25	368	0.04
30	16.80	33.30	20	16.81	33.29	24.27	366	0.07
44	16.79	33.31	30	16.80	33.30	24.28	365	0.11
58	16.10	33.34	50	16.68	33.32	24.32	361	0.18
68	15.79	33.33	75	15.58	33.34	24.59	336	0.27
77	15.56	33.34	100	14.95	33.50	24.85	311	0.35
91	15.76	33.50	150	10.70	33.31	25.53	246	0.49
100	14.95	33.50	200	9.08	33.74	26.14	188	0.60
113	14.06	33.49	250	8.27	33.92	26.41	163	0.69
141	11.54	33.31	300	7.51	33.98	26.57	148	0.77
168	9.70	33.43	400	6.39	34.11	26.82	124	0.91
224	8.68	33.88	500	5.69	34.20	26.98	109	1.04
288	7.70	33.96	600	5.22	34.29	27.11	96	1.14
399	6.40	34.11						
532	5.52	34.22						
667	5.00	34.39						

CREST; June 17, 1954; 1956 GCT; 30°21.5'N, 116°23'W; sounding, 950 fm; wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 12°. 107.35

0	16.7	33.42	0	16.7	33.42	24.39	355	0.00
10	16.64	33.43	10	16.64	33.43	24.41	353	0.04
30	15.94	33.39	20	16.24	33.42	24.50	344	0.07
44	13.26	33.12	30	15.94	33.39	24.54	340	0.10
49	13.16	33.24	50	13.11	33.27	25.05	292	0.17
54	12.85	33.33	75	10.74	33.41	25.61	239	0.24
63	12.08	33.40	100	9.55	33.77	26.09	193	0.29
74	10.80	33.41	150	9.08	34.00	26.34	169	0.38
92	9.90	33.63	200	8.30	34.10	26.54	150	0.46
105	9.40	33.82	250	7.83	34.18	26.68	137	0.54
130	9.08	33.94	300	7.41	34.24	26.78	128	0.60
165	9.06	34.03	400	6.75	34.31	26.93	113	0.73
210	8.15	33.49r	500	6.20	34.32	27.01	106	0.85
268	7.70	34.20	600	5.70	34.39	27.13	94	0.95
380	6.86	34.31						
508	6.15	34.32						
644	5.48	34.42						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m
107.50	CREST; June 18, 1954; 0353 GCT; 29°49'N, 117°23'W; sounding, 1320 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 30°.							
0	16.0	33.34	0	16.0	33.34	24.49	345	0.00
10	15.96	33.37	10	15.96	33.37	24.52	342	0.03
28	15.90	33.39	20	15.91	33.38	24.54	340	0.07
41	15.72	33.36	30	15.88	33.39	24.56	339	0.10
54	14.36	33.21	50	14.99	33.25	24.65	330	0.17
63	12.38	33.09a)	75	12.20	33.18	25.16	281	0.25
71	12.33	33.17a)	100	10.45	33.24	25.52	247	0.31
84	11.10	33.19	150	8.78	33.73	26.18	184	0.42
91	10.72	33.20	200	8.65	34.04	26.44	160	0.51
103	10.37	33.26	250	8.42	34.19	26.60	145	0.59
128	9.33	33.47	300	7.93	34.24	26.71	134	0.66
150	8.78	33.73	400	6.90	34.29	26.89	117	0.79
197	8.66	34.03	500	6.19	34.35	27.04	103	0.91
253	8.40	34.20	600	5.63	34.37	27.12	95	1.01
353	7.34	34.26						
474	6.32	34.34						
606	5.62	34.37						
107.70	CREST; June 18, 1954; 1327 GCT; 29°11'N, 118°42'W; sounding, 1750 fm; wind, 340°, force 3; weather, overcast; sea, rough; wire angle, 16°.							
0	17.2	33.38	0	17.2	33.38	24.25	368	0.00
10	17.12	33.37	10	17.12	33.37	24.26	367	0.04
30	17.10	33.37	20	17.10	33.37	24.26	367	0.07
45	16.99	33.34	30	17.10	33.37	24.26	367	0.11
60	16.46	33.31	50	16.85	33.33	24.29	364	0.18
69	15.24	33.20	75	14.89	33.19	24.62	333	0.27
80	14.63	33.18	100	13.32	33.18	24.94	302	0.35
94	14.06	-	150	9.67	33.53	25.88	213	0.48
103	12.52	33.18	200	8.75	33.92	26.33	170	0.58
117	10.33	33.18	250	8.32	34.08	26.52	152	0.66
145	9.78	33.48	300	7.98	34.15	26.63	142	0.74
174	9.17	33.74	400	7.05	34.21	26.81	125	0.88
229	8.44	34.04	500	6.33	34.29	26.97	110	1.00
295	8.02	34.14b)	600	5.70	34.34	27.09	98	1.11
411	6.94	34.22	700	(5.09)	(34.36)	(27.18)	(90)	(1.21)
547	6.03	34.32						
687	5.16	34.36						
110.33	CREST; June 16, 1954; 2355 GCT; 29°50.5'N, 115°52.5'W; sounding, 48 fm; wind, 270°, force 1; weather, overcast; sea, moderate; wire angle, 00°.							
0	13.9	33.34	0	13.9	33.34	24.95	301	0.00
5	12.80	33.40	10	12.24	33.43	25.35	263	0.03
10	12.24	33.43	20	11.52	33.52	25.55	244	0.05
15	11.72	33.47	30	10.97	33.54	25.67	233	0.08
20	11.52	33.52	50	10.61	33.56	25.74	226	0.12
45	10.62	33.56	75	10.62	33.59	25.77	223	0.18
71	10.64	33.58						
81	10.58	33.62						

a) Salinity samples at 63 and 71 meters appear to have been reversed; they are assumed to be listed in correct order.

b) Petcock on Nansen bottle open when bottle brought to surface.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

CREST; June 17, 1954; 0358, 0417 GCT; 29°36'N, 116°21'W; sounding, 1180 fm; wind, 320°, force 4; weather, fog; sea, moderate; wire angle, 12°, 12°. 110.40

0	16.7	33.18	0	16.7	33.18	24.21	372	0.00
10	16.63	33.18	10	16.63	33.18	24.23	370	0.04
25	16.50	33.30u	20	16.52	33.18	24.25	368	0.07
48	14.58	33.07	30	16.48	33.18	24.26	367	0.11
58	13.73	33.18	50	14.35	33.07	24.64	331	0.18
			75	11.52	33.06	25.19	279	0.26
69	12.96	33.11	100	10.20	33.47	25.75	225	0.32
79	10.91	33.05	150	9.21	33.92	26.26	177	0.42
98	10.29	33.42	200	8.84	34.05	26.42	162	0.51
121	9.30	33.68	250	8.34	34.09	26.53	151	0.59
150	9.21	33.92	300	7.92	34.15	26.64	141	0.66
196	8.88	34.04	400	7.15	34.29	26.86	120	0.80
262	8.22	34.10	500	6.30	34.36	27.03	104	0.92
362	7.45	34.25	600	5.74	34.39	27.13	94	1.03
487	6.41	34.35	700	5.28	34.43	27.21	87	1.12
666	5.44	34.41	800	4.80	34.50	27.32	76	1.21
887	4.45	34.52	1000	4.07	34.53	27.43	66	1.37
1196	3.54	34.54						

CREST; June 16, 1954; 0453 GCT; 28°56.5'N, 117°40'W; sounding, 2000 fm; wind, 320°, force 2; weather, overcast; sea, missing; wire angle, 10°. 110.60

0	16.8	33.22	0	16.8	33.22	24.22	371	0.00
10	16.50	33.24	10	16.50	33.24	24.30	363	0.04
25	16.42	33.30	20	16.43	33.24	24.36	358	0.07
50	14.68	33.08	30	16.40	33.23	24.35	359	0.11
60	14.24	33.14	50	14.68	33.08	24.58	337	0.18
70	14.06	33.22	75	13.82	33.18	24.84	312	0.26
80	13.37	33.13	100	11.51	33.13	25.25	273	0.33
99	11.62	33.13	150	9.71	33.72	26.02	200	0.45
124	10.06	33.42	200	8.92	34.01	26.38	166	0.55
152	9.68	33.75	250	8.40	34.14	26.56	148	0.63
198	8.94	34.01	300	7.95	34.23	26.70	135	0.70
265	8.26	34.17	400	7.10	34.29	26.87	119	0.83
365	7.39	34.30	500	6.34	34.26	26.95	111	0.96
489	6.42	34.26	600	5.69	34.36	27.11	96	1.07
666	5.36	34.41	700	5.20	34.41	27.21	87	1.17
883	4.48	34.42	800	4.79	34.42	27.26	82	1.26
1184	3.62	34.50	1000	4.11	34.45	27.36	73	1.43

CREST; June 15, 1954; 1901 GCT; 28°14'N, 118°57.5'W; sounding, 2100 fm; wind, 340°, force 1; weather, overcast; sea, rough; wire angle, 02°. 110.80

0	17.5	33.32	0	17.5	33.32	24.13	380	0.00
10	17.42	33.40	10	17.42	33.40	24.21	372	0.04
25	17.40	33.38	20	17.40	33.38	24.20	373	0.08
50	17.14	33.38	30	17.36	33.38	24.21	372	0.11
61	16.98	33.35	50	17.14	33.38	24.26	367	0.19
72	14.94	33.22	75	14.63	33.17	24.66	329	0.27
82	14.07	33.14	100	12.18	33.25	25.22	276	0.35
101	12.16	33.26	150	9.70	33.52	25.87	214	0.47
127	10.53	33.31	200	8.72	33.80	26.24	179	0.57
157	9.52	33.58	250	8.43	34.10	26.52	152	0.66
207	8.66	33.84	300	8.06	34.24	26.69	136	0.73
276	8.28	34.21	400	7.10	34.29	26.87	119	0.87
381	7.26	34.28	500	6.32	34.32	27.00	107	0.99
511	6.25	34.32	600	5.58	34.35	27.11	96	1.09
695	5.06	34.38	700	5.02	34.38	27.20	88	1.19
920	4.29	34.51	800	4.65	34.44	27.29	79	1.28
1229	3.40	34.55	1000	4.03	34.52	27.42	67	1.45

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
113.35	CREST; June 14, 1954; 1444 GCT; 29°11'N, 115°38.5'W; sounding, 680 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 05°.							
0	14.5	33.49	0	14.5	33.49	24.94	302	0.00
10	14.40	33.51	10	14.40	33.51	24.97	300	0.03
30	12.26	33.44	20	14.04	33.46	25.01	296	0.06
46	11.46	33.53	30	12.26	33.44	25.35	263	0.09
56	9.98	33.65	50	11.01	33.57	25.68	232	0.14
66	9.56	33.72	75	9.40	33.89	26.21	182	0.19
75	9.40	33.89	100	9.18	33.97	26.30	173	0.23
86	9.26	33.93	150	9.07	34.07	26.40	164	0.32
101	9.18	33.97	200	8.60	34.16	26.54	150	0.40
111	9.18	33.96	250	8.08	34.22	26.67	138	0.47
136	9.12	34.05	300	7.64	34.24	26.75	130	0.54
166	8.97	34.09	400	6.92	34.27	26.88	118	0.67
220	8.36	34.19	500	6.39	34.36	27.02	105	0.79
285	7.78	34.24	600	5.89	34.41	27.12	95	0.90
398	6.94	34.27						
529	6.24	34.38						
663	5.54	34.42						
113.50	CREST; June 15, 1954; 0032, 0146 GCT; 28°42'N, 116°37'W; sounding, 1900 fm; wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 02°, 02°.							
0	17.4	33.47	0	17.4	33.47	24.27	366	0.00
10	17.32	33.49	10	17.32	33.49	24.30	363	0.04
30	17.22	33.49	20	17.28	33.49	24.31	362	0.07
45	16.86	33.42	30	17.22	33.49	24.32	361	0.11
55	16.09	33.31	50	16.51	33.36	24.39	355	0.18
65	15.16	33.44	75	13.73	33.43	25.05	292	0.26
76	13.60	33.43	100	12.05	33.55	25.47	252	0.33
85	12.52	33.32	150	9.80	33.74	26.02	200	0.44
101	12.01	33.57	200	9.42	34.13	26.39	164	0.54
111	11.66	33.64	250	9.20	34.31	26.57	148	0.62
136	10.26	33.66	300	8.80	34.38	26.68	137	0.69
166	9.57	33.90	400	7.52	34.31	26.82	124	0.83
221	9.36	34.21	500	6.30	34.35	27.02	105	0.95
285	8.94	34.38	600	5.80	34.37	27.10	97	1.06
401	7.50	34.31	700	5.26	34.45	27.23	85	1.16
531	6.06	34.34	800	4.79	34.48	27.31	77	1.24
667	5.46	34.40	1000	4.09	34.60	27.48	61	1.40
			1200	3.60	34.57	27.51	58	1.54
478a)	6.58	34.35	1500	2.92	34.62	27.61	49	1.73
534	6.02	34.34	2000	2.18	34.63	27.68	42	2.01
593	5.82	34.36	2500	(1.84)	(34.68)	(27.75)	(36)	(2.25)
664	5.44	34.45						
738	5.08	34.47						
824	4.69	34.49						
913	4.38	34.51						
1014	4.04	34.60u						
1134	3.77	34.54						
1261	3.47	34.59						
1402	3.14	34.60						
1565	2.80	34.63						
1746	2.52	34.65						
1946	2.24	34.63						
2172	2.02	34.65						
2416	1.88	34.67						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; June 15, 1954; 1218 GCT; 28°02'N, 117°56.5'W; sounding, 1950 fm; wind, 290°, force 4; weather, overcast; sea, rough; wire angle, 05°. 113.70

0	17.5	33.53	0	17.5	33.53	24.29	364	0.00
10	17.46	33.53	10	17.46	33.53	24.30	363	0.04
30	17.34	33.48	20	17.40	33.50	24.29	364	0.07
45	16.52	33.44	30	17.34	33.48	24.29	364	0.11
55	15.16	33.30	50	15.75	33.38	24.58	337	0.18
65	14.70	33.22	75	14.21	33.35	24.89	307	0.26
76	14.15	33.35	100	11.70	33.28	25.33	265	0.33
86	13.34	33.25	150	10.18	33.82	26.02	200	0.45
101	11.68	33.28	200	9.25	34.11	26.40	164	0.54
111	11.48	33.43	250	9.32	34.43	26.64	141	0.62
136	10.52	33.71	300	9.20	34.49	26.71	134	0.69
165	9.83	33.93	400	7.72	34.36	26.84	122	0.82
220	9.16	34.20	500	6.80	34.39	26.99	108	0.95
283	9.44	34.50	600	6.02	34.41	27.11	96	1.06
397	7.75	34.36						
527	6.60	34.40						
663	5.60	34.42						

CREST; June 14, 1954; 0319 GCT; 28°48'N, 114°56.5'W; sounding, 52 fm; wind, 300°, force 4; weather, cloudy; sea, rough; wire angle, 17°. 117.30

0	14.6	33.39	0	14.6	33.39	24.84	312	0.00
5	14.46	33.37	10	14.44	33.37	24.86	310	0.03
10	14.44	33.37	20	14.18	33.42	24.95	301	0.06
15	14.32	33.40	30	13.67	33.41	25.05	292	0.09
20	14.18	33.42	50	10.87	33.28	25.48	251	0.15
25	13.88	33.43						
30	13.67	33.41						
45	11.40	33.28						
55	10.46	33.29						
69	9.90	33.46						

CREST; June 13, 1954; 1106, 1132 GCT; 28°28'N, 115°36'W; sounding, 550 fm; wind, 320°, force 4; weather, missing; sea, rough; wire angle, 02°, 05°. 117.40

0	16.5	33.36	0	16.5	33.36	24.39	355	0.00
10	16.46	33.39	10	16.46	33.39	24.43	351	0.04
15	16.40	33.39	20	16.28	33.40	24.47	347	0.07
20	16.28	33.40	30	16.04	33.41	24.54	340	0.10
25	16.08	33.40	50	13.51	33.19	24.91	305	0.17
30	16.04	33.41	75	11.17	33.32	25.46	252	0.24
40	15.10	33.38	100	9.90	33.64	25.93	208	0.30
51	13.39	33.18	150	10.61	34.27	26.30	173	0.39
66	12.24	33.17	200	10.01	34.51	26.59	146	0.48
81	10.46	33.44	250	9.51	34.42	26.60	145	0.55
100	9.90	33.64	300	9.22	34.46	26.68	137	0.63
125	10.77	34.16	400	8.29	34.42	26.80	126	0.76
165	10.41	34.34						
204	9.96	34.51u						
257	9.48	34.42						
331	9.07	34.47						
412	8.08	34.41						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

117.60

CREST; June 12, 1954; 2037 GCT; 27°41'N, 116°58.5'W; sounding, 1750 fm; wind, 340°, force 4; weather, overcast; sea, rough; wire angle, 08°.[a)]

0	17.4	33.48	0	17.4	33.48	24.27	366	0.00
10	17.31	33.53	10	17.31	33.53	24.33	360	0.04
25	16.61	33.36	20	16.87	33.44	24.37	357	0.07
35	15.87	33.25	30	16.31	33.30	24.39	355	0.11
44	14.49	33.13	50	13.53	33.14	24.87	309	0.17
49	13.66	33.14	75	11.58	33.42	25.46	253	0.24
60	12.62	33.12	100	10.10	33.74	25.97	204	0.30
70	12.21	33.32	150	10.07	34.22	26.35	168	0.40
85	10.56	33.59	200	9.50	34.39	26.58	146	0.48
105	10.02	33.78	250	8.99	34.41	26.68	137	0.55
131	9.96	34.02	300	8.58	34.42	26.75	130	0.62
168	10.12	34.34	400	7.55	34.43	26.91	115	0.75
218	9.27	34.40	500	6.49	34.47	27.09	98	0.86
282	8.73	34.42	600	5.81	34.48	27.19	89	0.96
396	7.60	34.43						
525	6.30	34.47						
660	5.53	34.49						

117.60

CREST; June 12, 1954; 2139 GCT; 27°41'N, 116°58.5'W; sounding, 1750 fm; wind, 340°, force 4; weather, overcast; sea, rough; wire angle, 08°.[a)]

0	17.5	33.48	0	17.5	33.48	24.25	368	0.00
10	17.36	33.46	10	17.36	33.46	24.27	366	0.04
30	16.25	33.36	20	16.91	33.43	24.35	359	0.07
45	13.66	33.17	30	16.25	33.36	24.45	349	0.11
55	12.48	33.17	50	12.99	33.17	25.00	297	0.17
65	11.58	33.37	75	11.28	33.47	25.56	243	0.24
76	11.22	33.48	100	10.42	33.78	25.95	206	0.30
86	10.50	33.59	150	9.85	34.14	26.33	170	0.39
101	10.40	33.78	200	9.60	34.33	26.52	152	0.48
111	10.04	33.78	250	9.12	34.41	26.66	139	0.55
136	9.90	34.03	300	8.51	34.42	26.76	129	0.62
165	9.79	34.23	400	7.41	34.38	26.89	117	0.75
220	9.44	34.37	500	6.58	34.39	27.02	105	0.87
283	8.73	34.42	600	5.91	34.44	27.14	93	0.97
396	7.45	34.38						
524	6.40	34.40						
661	5.54	34.47						

120.25

CREST; June 9, 1954; 2006 GCT; 28°23'N, 114°14.5'W; sounding, 31 fm; wind, 290°, force 5; weather, clear; sea, rough; wire angle, 10°.

0	17.2	33.55	0	17.2	33.55	24.38	356	0.00
10	17.14	33.55	10	17.14	33.55	24.39	355	0.04
20	14.00	33.36	20	14.00	33.36	24.94	302	0.07
25	12.03	33.22	30	11.48	33.22	25.32	266	0.10
30	11.48	33.22						
35	11.18	33.26						
40	10.75	33.27						
45	10.98	33.37						

a) Two casts were made one hour apart to observe short-term changes of properties.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

CREST; June 10, 1954; 0151 GCT; 28°02.5'N, 114°55'W; sounding, 47 fm; wind, 320°, force 7; weather, clear; sea, very rough; wire angle, 24°. 120.35

0	16.4	33.53	0	16.4	33.53	24.55	340	0.00
5	16.36	–	10	16.34	33.53	24.56	339	0.03
10	16.34	33.53	20	16.36	33.52	24.55	340	0.07
15	16.36	33.51	30	15.43	33.51	24.75	320	0.10
20	16.36	33.52	50	10.27	33.39	25.67	233	0.16
24	16.34	33.49						
29	15.72	33.51						
43	11.26	33.26						
52	10.13	33.44						
66	9.78	33.59						

CREST; June 11, 1954; 0919 GCT; 27°33'N, 115°52'W; sounding, 2100 fm; wind, 320°, force 6; weather, missing; sea, very rough; wire angle, 15°. 120.50

0	17.4	33.45	0	17.4	33.45	24.25	368	0.00
10	17.32	33.47	10	17.32	33.47	24.29	364	0.04
30	17.28	33.48	20	17.27	33.48	24.31	362	0.07
55	12.66	33.38	30	17.28	33.48	24.30	363	0.11
70	11.24	33.34	50	13.39	33.40	25.10	287	0.18
80	12.00	33.71	75	11.76	33.47	25.47	252	0.24
95	10.70	33.70	100	10.53	33.71	25.87	214	0.30
119	10.18	33.89	150	9.79	34.12	26.32	171	0.40
153	9.74	34.14	200	9.90	34.44	26.55	149	0.48
178	9.46	34.25	250	10.32	34.60	26.60	145	0.56
237	10.40	34.61	300	9.32	34.55	26.73	132	0.63
319	8.96	34.53	400	7.42	34.42	26.92	114	0.76
433	7.06	34.41	500	6.55	34.42	27.04	103	0.87
586	6.02	34.43	600	5.93	34.43	27.13	94	0.98
796	4.92	34.47	700	5.37	34.45	27.22	86	1.08
1045	3.99	34.52	800	4.89	34.47	27.29	79	1.17
1377	3.18	34.58	1000	4.12	34.51	27.41	68	1.33

CREST; June 11, 1954; 1941 GCT; 26°56'N, 117°09'W; sounding, 2100 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 28°. 120.70

0	17.6	33.66	0	17.6	33.66	24.36	358	0.00
10	17.52	33.69	10	17.52	33.69	24.41	353	0.04
28	15.45	33.40	20	17.39	33.68	24.43	351	0.07
51	11.32	33.25	30	14.90	33.38	24.77	319	0.10
64	10.88	33.46	50	11.42	33.25	25.36	262	0.16
72	10.53	33.53	75	10.46	33.56	25.77	223	0.22
86	10.27	33.67	100	9.77	33.76	26.04	198	0.28
107	9.69	33.79	150	9.64	34.15	26.37	166	0.37
129	9.90	34.05	200	9.20	34.28	26.54	150	0.45
148	9.68	34.14	250	8.50	34.29	26.66	139	0.52
196	9.24	34.28	300	8.12	34.34	26.76	129	0.59
263	8.34	34.30	400	7.20	34.39	26.93	113	0.72
355	7.72	34.39	500	6.33	34.38	27.04	103	0.84
481	6.48	34.38	600	5.72	34.38	27.12	95	0.94
652	5.41	34.39	700	5.10	34.41	27.22	86	1.04
858	4.26	34.50	800	4.51	34.47	27.33	75	1.13
1147	3.57	34.60	1000	3.85	34.56	27.47	62	1.28

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

120.90

CREST; June 12, 1954; 0545 GCT; 26°12'N, 118°27'W; sounding, 2200 fm; wind, 340°, force 5; weather, overcast; sea, moderate; wire angle, 14°.

0	17.8	33.43	0	17.80	33.43	24.14	379	0.00
10	17.80	33.47	10	17.80	33.47	24.17	376	0.04
30	17.77	33.42	20	17.79	33.44	24.15	378	0.08
55	16.33	33.40	30	17.77	33.42	24.14	379	0.11
70	15.84	33.49	50	16.60	33.40	24.40	354	0.19
80	15.50	33.48	75	15.68	33.49	24.68	327	0.27
96	14.47	33.45	100	14.19	33.45	24.97	300	0.35
121	12.22	33.49	150	10.25	33.69	25.91	210	0.48
156	10.10	33.76	200	9.69	34.18	26.38	166	0.58
180	9.87	34.11	250	9.31	34.30	26.54	150	0.66
239	9.38	34.27	300	9.02	34.50	26.74	131	0.73
321	8.88	34.52	400	8.17	34.49	26.87	119	0.86
434	7.72	34.48	500	6.85	34.48	27.05	102	0.98
586	6.08	34.48	600	5.96	34.48	27.17	91	1.08
792	4.86	34.53	700	5.32	34.50	27.26	82	1.18
1039	3.88	34.66u	800	4.81				
1370	3.08	34.66u	1000	4.00				

123.40

CREST; June 9, 1954; 0722 GCT; 27°18'N, 114°52'W; sounding, 310 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 45°.

0	15.3	33.42	0	15.3	33.42	24.71	324	0.00
8	15.32	33.42	10	15.32	33.42	24.71	324	0.03
23	12.82	33.30	20	13.27	33.31	25.05	292	0.06
30	11.85	33.38	30	11.85	33.38	25.38	260	0.09
39	10.67	33.33	50	11.79	33.82	25.73	227	0.14
45	11.36	33.70	75	11.26	34.11	26.06	196	0.19
51	11.82	33.85	100	11.20	34.32	26.23	180	0.24
57	11.84	34.02	150	11.04	34.48	26.38	166	0.33
63	11.54	34.02	200	10.73	34.53	26.48	156	0.41
69	11.37	34.08	250	10.20	34.55	26.59	146	0.49
80	11.20	34.13	300	9.54	34.59	26.73	132	0.56
94	11.14	34.26						
105	11.26	34.35						
126	11.16	34.40						
172	10.94	34.52						
234	10.41	34.54						
317	9.31	34.60						

123.60

CREST; June 8, 1954; 1934 GCT; 26°37'N, 116°09.5'W; sounding, 2000 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 18°.

0	17.5	33.38	0	17.5	33.38	24.17	376	0.00
10	17.51	33.39	10	17.51	33.39	24.18	375	0.04
25	17.38	33.37	20	17.40	33.37	24.19	374	0.08
34	17.37	33.38	30	17.39	33.38	24.20	373	0.11
43	16.36	33.37	50	15.71	33.34	24.56	339	0.18
48	15.86	33.36	75	13.88	33.25	24.88	308	0.26
56	15.41	33.29	100	12.78	33.64	25.40	259	0.34
66	14.70	33.32	150	11.30	34.15	26.08	194	0.45
80	13.50	33.24	200	9.79	34.24	26.41	163	0.54
97	12.88	33.59	250	8.97	34.31	26.60	145	0.62
119	12.14	33.91	300	8.21	34.31	26.72	133	0.69
154	11.18	34.17	400	7.15	34.35	26.91	115	0.82
198	9.82	34.24	500	6.35	34.40	27.06	101	0.94
256	8.88	34.31	600	5.55	34.40	27.16	92	1.04
360	7.51	34.31						
479	6.52	34.40						
612	5.47	34.40						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; June 7, 1954; 2109 GCT; 26°55'N, 114°06'W; sounding, 44 fm; wind, 280°, force 5; weather, clear; sea, moderate; wire angle, 18°. 127.34

0	14.0	33.53	0	14.0	33.53	25.07	290	0.00
10	13.28	33.62	10	13.28	33.62	25.29	269	0.03
15	12.79	33.66	20	12.16	33.66	25.54	245	0.05
20	12.16	33.66	30	11.18	33.82	25.85	216	0.08
25	11.48	33.71	50	11.14	34.11	26.08	194	0.12
30	11.18	33.82						
45	11.16	34.00						
55	11.12	34.20						
69	11.24	34.33						

CREST; June 8, 1954; 0730, 0748 GCT; 26°22'N, 115°07.5'W; sounding, 1650 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 18°, 22°. 127.50

0	18.1	33.53	0	18.1	33.53	24.14	379	0.00
10	18.04	33.56	10	18.04	33.56	24.18	375	0.04
25	18.02	33.53	20	18.02	33.54	24.17	376	0.08
35	17.99	33.54	30	18.01	33.54	24.17	376	0.11
45	17.45	33.49	50	16.82	33.42	24.37	357	0.19
50	16.82	33.42	75	15.86	33.57	24.70	325	0.27
61	16.50	33.46	100	13.29	33.34	25.07	290	0.35
			150	10.97	33.87	25.92	209	0.48
64	16.46	33.50	200	10.82	34.38	26.34	169	0.57
77	15.68	33.57	250	10.56	34.60	26.56	148	0.65
94	13.64	33.35	300	9.67	34.57	26.69	136	0.73
115	12.62	33.34	400	8.19	34.47	26.85	121	0.86
149	10.98	33.85	500	7.04	34.43	26.99	108	0.98
193	10.84	34.33	600	6.12	34.43	27.11	96	1.10
250	10.56	34.60						
353	8.88	34.52						
473	7.35	34.43						
604	6.09	34.43						

CREST; June 7, 1954; 1617 GCT; 26°29'N, 113°29.5'W; sounding, 43 fm; wind, 240°, force 2; weather, clear; sea, moderate; wire angle, 00°. 130.30

0	13.4	33.60	0	13.4	33.60	25.25	273	0.00
10	12.93	33.59	10	12.93	33.59	25.34	264	0.03
15	12.74	33.57	20	12.74	33.66	25.43	256	0.05
20	12.74	33.66	30	11.93	33.54	25.49	250	0.08
25	12.38	33.66	50	11.06	33.89	25.92	209	0.12
30	11.93	33.54	75	(11.26)	(34.20)	(26.13)	(189)	(0.18)
45	11.11	33.80						
56	11.04	33.98						
71	11.20	34.16						

130.40

CREST; June 7, 1954; 0955 GCT; 26°08'N, 114°09.5'W; sounding, 1500 fm; wind, 310°, force 4; weather, clear; sea, rough; wire angle, 30°.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	$10^{-5}T^3$ cm/g	dyn. m
0	15.80	33.45	0	15.8	33.45	24.62	333	0.00
10	15.43	33.43	10	15.43	33.43	24.69	326	0.03
23	15.42	33.42	20	15.43	33.42	24.68	327	0.07
50	13.78	33.38	30	15.05	33.41	24.76	320	0.10
58	13.44	33.63	50	13.78	33.38	25.00	297	0.16
67	13.03	33.78	75	13.23	33.93	25.54	245	0.23
80	13.28	33.96	100	11.03	33.97	25.99	202	0.28
95	11.12	33.96	150	10.51	34.35	26.38	166	0.38
115	10.89	34.12	200	10.58	34.59	26.55	149	0.46
136	10.46	34.19	250	10.00	34.57	26.64	141	0.53
179	10.66	34.59	300	9.21	34.57	26.77	128	0.60
239	10.17	34.57	400	7.80	34.45	26.89	117	0.73
324	8.87	34.56	500	6.92	34.45	27.02	105	0.85
439	7.41	34.44	600	6.22	34.47	27.13	94	0.96
595	6.26	34.47	700	5.49	34.48	27.23	85	1.06
794	4.98	34.49	800	4.93	34.49	27.30	78	1.15
1072	4.14	34.52	1000	4.29	34.51	27.39	70	1.32

130.60

CREST; June 6, 1954; 2123 GCT; 25°29'N, 115°27'W; sounding, 2100 fm; wind, 330°, force 5; weather, clear; sea, very rough; wire angle, 17°.

0	18.8	33.73	0	18.8	33.73	24.12	380	0.00
10	18.38	33.68	10	18.38	33.68	24.19	374	0.04
30	18.28	33.70	20	18.30	33.69	24.22	371	0.08
55	16.70	33.44	30	18.28	33.70	24.23	370	0.11
69	15.74	33.40	50	17.08	33.48	24.35	359	0.18
78	15.32	33.48	75	15.47	33.47	24.71	324	0.27
93	13.94	33.30	100	13.44	33.31	25.02	295	0.35
116	12.48	33.63	150	11.12	34.03	26.02	200	0.47
149	11.12	34.02	200	10.28	34.31	26.39	164	0.57
172	11.05	34.31	250	9.30	34.32	26.56	148	0.65
228	9.45	34.30	300	9.03	34.42	26.68	137	0.72
307	9.00	34.43	400	8.01	34.45	26.86	120	0.86
417	7.82	34.45	500	6.95	34.44	27.01	106	0.98
564	6.42	34.44	600	6.16	34.44	27.11	96	1.09
764	5.24	34.51	700	5.55	34.48	27.22	86	1.19
1004	4.22	34.52	800	5.02	34.52	27.31	77	1.28
1325	3.38	34.57	1000	4.21	34.52	27.40	69	1.44

133.30

CREST; June 6, 1954; 0214 GCT; 25°54'N, 113°07'W; sounding, 107 fm; wind, 300°, force 4; weather, clear; sea, rough; wire angle, 20°.

0	16.6	33.59	0	16.6	33.59	24.55	340	0.00
10	16.58	33.53	10	16.58	33.53	24.51	343	0.03
15	16.54	33.57	20	16.14	33.61	24.67	328	0.07
20	16.14	33.61	30	15.21	33.64	24.90	306	0.10
25	15.78	33.62	50	11.49	33.79	25.77	223	0.15
30	15.21	33.64	75	11.90	34.24	26.04	198	0.21
35	12.70	33.49	100	11.64	34.40	26.21	182	0.25
44	11.54	33.66	150	11.23	34.67	26.50	154	0.34
55	11.50	33.88						
64	12.08	34.15						
79	11.84	34.27						
97	11.67	34.38						
116	11.56	34.46						
149	11.27	34.67						
174	11.02	34.65						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

CREST; June 6, 1954; 1301 GCT; 25°12.5'N, 114°22.5'W; sounding, 1900 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 22°. 133.50

0	16.9	33.42	0	16.90	33.42	24.35	359	0.00
10	16.93	33.44	10	16.93	33.44	24.36	358	0.04
29	16.92	33.48	20	16.93	33.47	24.38	356	0.07
44	16.41	33.44	30	16.90	33.48	24.39	355	0.11
59	15.58	33.40	50	16.15	33.42	24.52	342	0.18
69	14.06	33.33	75	13.49	33.34	25.03	294	0.26
78	13.29	33.36	100	13.22	33.88	25.50	249	0.32
92	12.76	33.70	150	10.98	34.07	26.08	194	0.44
101	13.24	33.93	200	10.82	34.48	26.42	162	0.53
114	12.80	34.16	250	10.33	34.52	26.54	150	0.61
141	10.96	34.04	300	9.76	34.52	26.64	141	0.68
167	11.04	34.32	400	8.58	34.49	26.81	125	0.82
221	10.62	34.51	500	7.33	34.50	27.00	107	0.95
285	9.92	34.52	600	6.30	34.48	27.12	95	1.06
398	8.62	34.49						
533	6.95	34.50						
674	5.69	34.45						

CREST; June 5, 1954; 1833 GCT; 25°33.5'N, 112°20.5'W; sounding, 40 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 05°. 137.23

0	16.8	33.66	0	16.8	33.66	24.55	340	0.00
5	16.54	33.72	10	16.32	33.68	24.68	327	0.03
10	16.32	33.68	20	14.60	33.69	25.07	290	0.06
15	15.50	33.71	30	13.49	33.96	25.51	248	0.09
20	14.60	33.69	50	12.90	34.16	25.78	222	0.14
25	13.73	33.92						
30	13.49	33.96						
40	13.26	34.05						
55	12.71	34.20						
66	12.39	34.26						

CREST; June 5, 1954; 0900 GCT; 24°56'N, 113°22.5'W; sounding, 1975 fm; wind, 320°, force 6; weather, missing; sea, rough; wire angle, 30°. 137.40

0	18.3	33.53	0	18.3	33.53	24.09	383	0.00
10	18.23	33.57	10	18.23	33.57	24.14	379	0.04
28	18.17	33.53	20	18.18	33.55	24.14	379	0.08
40	15.48	33.30	30	18.16	33.51	24.11	382	0.11
49	14.45	33.22	50	14.36	33.22	24.76	320	0.18
57	13.92	33.28	75	12.63	33.35	25.21	277	0.26
65	13.02	33.22	100	12.00	33.86	25.72	228	0.32
73	12.68	33.28	150	11.01	34.38	26.31	172	0.42
84	12.47	33.61	200	10.50	34.54	26.53	151	0.51
90	12.34	33.77	250	10.07	34.56	26.62	143	0.58
109	11.60	33.93	300	9.55	34.56	26.70	135	0.66
130	11.30	34.22	400	8.38	34.48	26.83	123	0.79
173	10.75	34.49	500	7.21	34.45	26.98	109	0.92
223	10.31	34.56						
315	9.38	34.55						
425	8.07	34.47						
550	6.70	34.45						

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
50.47-H	VI-5	1614	39°46.0'	123°54.0'	52	calm		partly cloudy	rough	9.19	33.77
50.60-H	5	2305	39°20.0'	124°52.0'	1600	310°	2	partly cloudy	rough	13.52	32.62
50.80-H	6	0833	38°41.0'	126°21.0'	2400	320°	4	clear	rough	13.24	32.65
50.100-H	6	1722	38°00.0'	127°49.0'	2550	270°	2	cloudy	rough	13.84	32.88
53.55-H	5	0947	38°55.5'	124°04.5'	650	270°	3	clear	rough	10.59	33.01
57.51-H	4	1648	38°30.0'	123°22.0'	54	240°	2	partly cloudy	rough	8.48	33.89
57.65-H	4	2331	38°02.0'	124°23.5'	2180	250°	4	partly cloudy	rough	11.26	33.38
60.55-H	8	0238	37°47.5'	123°14.5'	68	310°	3	partly cloudy	moderate	10.20	33.40
60.70-H	7	1850	37°17.0'	124°19.0'	2200	290°	4	cloudy	rough	12.72a)	32.72
60.90-H	7	0919	36°36.5'	125°49.0'	2500	320°	4	clear	rough	14.04	32.95
63.52-H	9	1924	37°18.5'	122°36.5'	43	220°	3	cloudy	moderate	11.30	33.04
63.65-H	10	0115	36°53.5'	123°33.0'	1850	320°	4	cloudy	rough	12.64	33.47
67.55-H	10	1016	36°40.5'	122°26.5'	1150	320°	4	clear	rough	13.56	33.07
70.55-H	12	0012	36°03.5'	122°01.5'	760	300°	5	cloudy	rough	12.90	33.10
70.70-H	12	0743	35°33.0'	123°06.0'	2100	270°	3	cloudy	rough	14.48	32.87

a) Average value of 12.77 and 12.66°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
70.90-H	VI-12	1700	34°52.5'	124°26.5'	2350	340°	4	cloudy	rough	14.98	32.87
73.50-H	10	2047	35°37.0'	121°16.5'	48	320°	4	partly cloudy	rough	10.43	33.60
77.50-H	11	0030	35°05.0'	120°52.0'	80	320°	6	partly cloudy	rough	10.68	33.79
77.65-H	11	0803	34°30.5'	122°03.5'	2100	320°	6	clear	very rough	12.21	33.40
80.51-H	14	0940	34°26.5'	120°32.5'	50	300°	6	cloudy	high	10.48	33.84
80.60-H	14	0428	34°16.5'	121°11.0'	1150	320°	7	clear	high	13.02	33.48
80.70-H	13	2346	33°50.0'	121°52.0'	2000	320°	7	clear	high	13.96	33.12
80.80-H	13	1909	33°28.0'	122°32.0'	2150	320°	6	partly cloudy	very rough	15.06	33.04
80.100-H	13	0902	32°49.0'	123°54.0'	2400	330°	6	partly cloudy	very rough	15.88	33.01
83.40-H	14	1800	34°14.0'	119°23.5'	12	calm		clear	slight	14.89	33.48
83.48-H	15	1535	33°58.5'	119°55.0'	100	340°	3	partly cloudy	slight	13.73	33.57
83.55-H	15	1930	33°43.5'	120°25.5'	655	330°	5	fog	very rough	12.58	33.51
83.70-H	16	0243	33°14.0'	121°27.0'	2100	320°	6	partly cloudy	very rough	14.03	33.32
83.90-H	16	1141	32°38.5'	122°51.0'	2300	320°	5	drizzle	very rough	15.12	33.26
85.50-H	15	0435	33°37.0'	119°51.5'	190	310°	5	clear	very rough	14.46	33.64
85.60-H	15	0957	33°13.5'	120°32.0'	655	340°	5	clear	high	13.28	33.40
87.35-H	17	2001	33°51.0'	118°38.5'	270	260°	2	cloudy	rough	16.86	33.43

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
87.45-H	VI-17	1501	33°30.0'	119°18.5'	930	320°	3	overcast	rough	14.38	33.53
87.55-H	17	0943	33°08.0'	119°59.5'	700	320°	7	clear	high	12.98	33.49
87.90-H	16	1615	32°03.0'	122°28.0'	2250	310°	6	cloudy	very rough	16.02	33.13
90.30-H	18	0753	33°24.0'	117°55.5'	310	290°	2	cloudy	slight	18.21	33.45
90.33^{5}-H	18	0948	33°17.5'	118°10.0'	400	220°	1	cloudy	slight	17.62	33.46
90.41-H	18	1420	33°02.5'	118°40.0'	180	180°	2	overcast	rough	15.75	33.42
90.45-H	18	1617	32°54.5'	118°56.0'	950	220°	1	cloudy	rough	16.18	33.44
90.50-H	18	1845	32°44.5'	119°17.5'	240	270°	4	clear	very rough	14.22	33.42
90.60-H	18	2356	32°25.0'	119°57.5'	520	320°	5	clear	very rough	14.10	33.33
93.27-H	21	0059	32°55.5'	117°18.5'	100	240°	1	cloudy	moderate	15.80	33.42
93.35-H	20	2120	32°48.0'	117°53.0'	341	140°	2	overcast	moderate	17.72	33.40
93.40-H	20	1918	32°45.5'	118°13.5'	725	140°	3	cloudy	moderate	17.42	33.43
93.45-H	20	1703	32°38.0'	118°37.0'	600	290°	1	cloudy	rough	16.21	33.40
93.55-H	20	1203	32°26.0'	119°21.5'	280	330°	5	clear	rough	14.10	33.42
93.60-H	20	0939	32°09.5'	119°40.0'	1900	320°	5	clear	high	13.88	33.39
97.30-C	23	0130	32°15.5'	117°09.0'	32	320°	4	partly cloudy	moderate	15.92	33.39
97.32-C	23	0005	32°11.5'	117°17.0'	800	300°	3	overcast	moderate	17.15	33.46

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
97.36-C	VI-22	2204	32°03.0'	117°33.5'	820	310°	3	overcast	rough	17.28	33.48
97.45-C	22	1704	31°43.0'	118°09.5'	800	330°	2	overcast	rough	16.91	33.40
97.50-C	22	1415	31°35.0'	118°30.0'	1350	310°	3	overcast	rough	16.53	33.35
97.55-C	22	1205	31°26.0'	118°47.0'	1200	290°	4	overcast	moderate	16.18	33.34
97.70-C	22	0420	30°55.0'	119°50.0'	1900	280°	3	overcast	moderate	16.60	33.43
97.90-C	21	1845	30°15.0'	121°12.5'	2100	200°	3	overcast	moderate	16.06	33.31
100.30-C	20	0505	31°40.5'	116°46.5'	230	330°	2	overcast	slight	17.32	33.48
100.35-C	20	0725	31°31.0'	117°07.0'	720	240°	2	overcast	moderate	16.52	33.37
100.40-C	20	0955	31°21.0'	117°27.5'	1000	240°	3	overcast	rough	16.37	33.38
100.45-C	20	1215	31°13.0'	117°47.0'	950	260°	2	overcast	rough	16.84	33.54
100.55-C	20	1822	30°56.5'	118°23.5'	950	260°	2	overcast	rough	16.46	33.27
100.60-C	20	2105	30°45.5'	118°44.0'	1600	180°	2	overcast	very rough	16.60	33.30
100.80-C	21	0720	30°01.0'	120°07.0'	2200	310°	2	overcast	very rough	16.08	33.33
103.35-C	19	2039	30°55.5'	116°46.0'	1050	310°	3	overcast	rough	16.79	33.35
103.45-C	19	1513	30°36.5'	117°24.5'	450	300°	4	cloudy	rough	16.10	33.35
103.50-C	19	1250	30°23.0'	117°44.0'	1200	310°	5	clear	rough	16.24	33.31
103.55-C	19	1015	30°14.0'	118°04.5'	1300	310°	5	clear	rough	16.62	33.35

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
103.70-C	VI-19	0225	29°43.5'	119°03.5'	2000+	310°	5	cloudy	very rough	16.64	33.22
107.32-C	17	1805	30°26.0'	116°11.0'	275	310°	3	overcast	rough	16.64	-
107.40-C	17	2345	30°10.0'	116°43.0'	1500	310°	4	overcast	rough	16.76	33.47
107.45-C	18	0106	30°00.0'	117°03.0'	1100	310°	5	overcast	rough	16.79	33.40
107.55-C	18	0650	29°39.0'	117°42.5'	1800	320°	4	overcast	rough	16.19	33.33
107.60-C	18	0926	29°29.5'	118°02.5'	2000	310°	5	cloudy	rough	16.36	33.25
110.35-C	17	0120	29°46.5'	116°00.0'	680	260°	2	overcast	moderate	15.98	33.38
110.45-C	17	0715	29°26.5'	116°39.5'	950	320°	4	overcast	rough	16.50	33.40
110.50-C	17	0930	29°17.5'	116°57.0'	1700	320°	4	overcast	rough	17.53	33.48
110.55-C	16	0748	29°06.0'	117°20.0'	2000	320°	3	overcast	rough	17.58	33.48
110.70-C	16	0010	28°37.0'	118°18.0'	2000	290°	3	overcast	rough	17.32	33.42
113.30-C	14	1143	29°21.5'	115°19.0'	38	310°	3	clear	slight	11.96	33.53
113.32^{5}-C	14	1245	29°17.5'	115°27.0'	60	280°	4	overcast	moderate	12.86	33.48
113.37^{5}-C	14	1640	29°07.0'	115°48.5'	950	270°	3	overcast	rough	14.38	33.48
113.40-C	14	1815	29°01.5'	115°58.5'	1050	240°	3	overcast	rough	16.02	33.40
113.42^{5}-C	14	1946	28°56.5'	116°08.0'	600	240°	3	overcast	rough	17.06	33.41
113.45-C	14	2117	28°52.0'	116°17.0'	1250	280°	3	overcast	rough	17.30	33.42

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
113.47.5-C	VI-14	2248	28°47.0'	116°27.0'	2150	310°	4	overcast	rough	17.30	33.44
113.55-C	15	0505	28°32.0'	116°56.5'	1900	290°	4	missing	rough	17.38	33.46
113.60-C	15	0735	28°22.5'	117°16.0'	2000	290°	4	missing	rough	17.68	33.51
117.26-C	14	0602	28°56.0'	114°41.0'	44	290°	5	clear	moderate	14.66	33.33
117.28-C	14	0440	28°52.0'	114°48.5'	49	280°	4	clear	moderate	14.94	33.39
117.32.5-C	14	0145	28°43.0'	115°06.5'	83	300°	5	overcast	rough	15.22	33.35
117.35-C	14	0010	28°38.0'	115°17.0'	105	310°	6	overcast	rough	16.08	33.37
117.37.5-C	13	2225	28°31.0'	115°27.0'	150	300°	5	overcast	rough	16.56	33.39
117.42.5-C	13	0910	28°23.0'	115°45.5'	800	320°	4	missing	rough	16.46	33.36
117.45-C	13	0733	28°18.0'	115°55.5'	1850	320°	4	overcast	rough	17.52	33.49
117.47.5-C	13	0530	28°11.0'	116°04.0'	2400	330°	6	overcast	rough	17.42	33.51
117.50-C	13	0400	28°04.5'	116°12.5'	2200	320°	4	missing	rough	17.52	33.47
117.55-C	13	0125	27°55.0'	116°32.0'	2300	310°	5	cloudy	rough	17.40	33.55
117.70-C	12	1600	27°24.0'	117°30.5'	2150	330°	5	overcast	rough	17.39	33.51
120.27.5-C	9	2130	28°18.0'	114°24.0'	47	310°	6	clear	rough	16.65	33.51
120.30-C	9	2300	28°13.0'	114°34.0'	52	310°	6	partly cloudy	rough	16.46	33.49
120.32.5-C	10	0012	28°07.5'	114°44.5'	46	320°	6	clear	very rough	16.56	33.48

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
120.37.5-C	VI-10	0304	27°58.5'	115°03.0'	41	350°	4	clear	moderate	16.70	33.48
120.40-C	11	0256	27°55.5'	115°16.0'	27	320°	7	partly cloudy	missing	16.22	33.51
120.42.5-C	11	0415	27°48.0'	115°23.0'	120	320°	6	missing	rough	16.22	33.42
120.45-C	11	0540	27°42.0'	115°33.0'	1400	320°	6	missing	rough	16.98	33.46
120.47.5-C	11	0720	27°37.5'	115°42.0'	2400	320°	6	missing	very rough	17.54	33.63
120.55-C	11	1223	27°22.5'	116°12.0'	2000	320°	4	cloudy	rough	17.36	33.50
120.60-C	11	1455	27°13.0'	116°32.0'	2000	330°	4	cloudy	rough	17.27	33.51
120.80-C	12	0103	26°32.0'	117°49.0'	2100	330°	5	cloudy	rough	17.71	33.43
123.37-C	9	0920	27°24.0'	114°40.0'	40	290°	3	missing	rough	12.02	33.84
123.42.5-C	9	0525	27°13.0'	115°01.5'	1100	320°	6	clear	rough	16.54	33.40
123.45-C	9	0350	27°08.0'	115°11.0'	2200	330°	5	partly cloudy	rough	17.93	33.66
123.47.5-C	9	0218	27°03.0'	115°21.0'	2100	330°	5	partly cloudy	rough	17.94	33.58
123.50-C	9	0045	26°58.0'	115°30.5'	2000	320°	5	partly cloudy	rough	18.11	33.52
123.55-C	8	2215	26°47.5'	115°50.0'	2000	340°	5	cloudy	rough	17.72	33.46
127.37-C	7	2300	26°49.5'	114°17.0'	1300	300°	5	clear	rough	14.88	33.51
127.40-C	8	0050	26°43.5'	114°29.0'	1650	310°	5	clear	rough	15.94	33.46
127.42.5-C	8	0220	26°38.5'	114°38.0'	2000	300°	5	clear	very rough	15.70	33.49

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
127.45-C	VI-8	0358	26°33.0'	114°48.0'	1770	310°	5	clear	rough	17.30	33.43
127.47.5-C	8	0530	26°27.5'	114°58.0'	1900	320°	5	clear	rough	18.28	33.74
127.55-C	8	1033	26°10.5'	115°27.0'	2000	320°	5	clear	rough	17.97	33.51
127.60-C	8	1330	26°01.0'	115°47.5'	2000	340°	6	cloudy	rough	17.72	33.48
130.35-C	7	1325	26°17.0'	113°48.0'	335	310°	4	clear	rough	16.09	33.47
130.45-C	7	0650	25°58.5'	114°27.0'	1900	320°	5	missing	rough	18.38	33.78
130.50-C	7	0425	25°50.0'	114°46.5'	1950	320°	5	missing	rough	18.54	33.88
130.55-C	7	0135	25°40.0'	115°07.0'	2000	320°	5	partly cloudy	very rough	18.26	33.71
133.25-C	5	2315	26°04.0'	112°50.0'	50	270°	5	clear	rough	15.62	33.87
133.35-C	6	0450	25°44.0'	113°26.5'	400	320°	5	clear	rough	16.37	33.58
133.40-C	6	0725	25°34.0'	113°45.0'	1500	320°	5	missing	rough	15.87	33.37
133.45-C	6	0955	25°23.5'	114°04.0'	1900	320°	6	missing	rough	17.10	33.58
137.30-C	5	1510	25°20.0'	112°45.5'	200	320°	4	missing	rough	16.12	33.58
137.35-C	5	1155	25°04.5'	113°03.0'	650	320°	4	missing	rough	17.71	33.56
137.45-C	5	0546	24°47.5'	113°42.0'	1750	320°	4	missing	rough	18.32	33.55
137.50-C	5	0305	24°39.0'	114°01.5'	1840	310°	4	partly cloudy	rough	18.12	33.53

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m
60.60	CREST; July 11, 1954; 0502 GCT; 37°37'N, 123°37'W; sounding, 1750 fm; wind, 310°, force 4; weather, overcast; sea, rough; wire angle, 25°.							
0	14.5	33.40	0	14.5	33.40	24.87	309	0.00
10	14.04	33.41	10	14.04	33.41	24.97	300	0.03
24	11.52	33.55	20	12.14	33.51	25.43	256	0.06
52	10.28	33.66	30	11.14	33.58	25.67	233	0.08
60	9.95	33.78	50	10.34	33.65	25.86	215	0.13
69	9.30	33.74	75	9.29	33.76	26.12	190	0.18
82	9.22	33.80	100	8.67	33.84	26.28	175	0.22
101	8.68	33.84	150	8.11	34.00	26.49	155	0.30
121	8.42	33.98	200	(7.34)	(34.01)	(26.61)	(144)	(0.38)
146	8.17	34.00						
191	7.44	34.01						
60.80	CREST; July 11, 1954; 1724 GCT; 36°56'N, 125°04'W; sounding, 2350 fm; wind, 330°, force 4; weather, cloudy; sea, moderate; wire angle, 25°.							
0	16.4	32.98	0	16.4	32.98	24.13	380	0.00
10	16.36	33.01	10	16.36	33.01	24.16	377	0.04
24	15.94	32.94	20	16.16	32.96	24.17	376	0.08
47	12.36	32.86	30	15.11	32.91	24.36	358	0.11
56	11.46	32.92	50	12.06	32.87	24.95	301	0.18
66	10.93	33.09	75	9.78	33.30	25.68	232	0.24
75	9.78	33.30	100	8.87	33.46	25.95	206	0.30
93	9.18	33.42	150	8.13	33.84	26.37	166	0.40
114	8.41	33.58	200	7.36	33.94	26.56	148	0.48
139	8.26	33.81	250	6.95	34.01	26.67	138	0.55
181	7.60	33.91	300	6.74	34.07	26.74	131	0.62
236	7.02	33.99	400	5.57	34.12	26.93	113	0.74
321	6.64	34.09	500	5.10	34.17	27.03	104	0.86
428	5.37	34.12	600	4.80	34.28	27.15	92	0.96
585	4.84	34.27	700	4.50	34.35	27.24	84	1.06
781	4.26	34.39	800	4.20	34.39	27.30	78	1.15
1061	3.50	34.46	1000	3.62	34.45	27.41	68	1.31
60.100	CREST; July 12, 1954; 0317, 0401 GCT; 36°17'N, 126°30'W; sounding, 2360 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 28°, 35°.							
0	17.0	33.02	0	17.0	33.02	24.02	390	0.00
10	16.97	32.90	10	16.97	32.90	23.93	399	0.04
23	16.19	32.89	20	16.67	32.89	23.99	393	0.08
46	15.05	32.95	30	15.83	32.90	24.19	374	0.12
55	14.22	32.99	50	14.66	32.97	24.50	344	0.19
64	13.48	32.94	75	11.70	32.93	25.06	291	0.27
73	11.94	32.93	100	9.72	33.25	25.65	235	0.34
89	10.46	33.15	150	8.48	33.68	26.19	184	0.44
111	9.22	33.36	200	7.88	33.91	26.46	158	0.53
135	8.68	33.56	250	7.24	34.02	26.64	141	0.60
174	8.18	33.84	300	6.65	34.08	26.76	129	0.67
			400	5.73	34.07	26.87	119	0.80
215	7.69	33.95	500	5.15	34.15	27.01	106	0.92
296	6.72	34.08	600	4.79				
400	5.73	34.07	700	4.50				
554	4.93	34.22	800	4.18				
750	4.34	-	1000	3.56				
1036	3.48	-						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; July 10, 1954; 2250 GCT; 37°18'N, 122°36'W; sounding, 47 fm; wind, 280°, force 4; weather, overcast; sea, moderate; wire angle, 03°. 63.52

0	13.66	33.04	0	13.66	33.04	24.76	320	0.00
10	12.53	33.36	10	12.53	33.36	25.24	274	0.03
15	12.08	33.79	20	11.61	33.80	25.75	225	0.06
20	11.61	33.80	30	9.46	33.87	26.18	184	0.08
25	10.69	33.86						
30	9.46	33.87						
35	9.04	33.93						
39	8.64	33.94						
49	8.42	33.98						

CREST; July 10, 1954; 0615 GCT; 36°49'N, 122°05'W; sounding, 61 fm; wind, 320°, force 3; weather, fog; sea, slight; wire angle, 00°. 67.50

0	10.87	33.70	0	10.87	33.70	25.81	220	0.00
16	10.79	33.68	10	10.87	33.70	25.81	220	0.02
26	10.18	33.63	20	10.53	33.66	25.84	217	0.04
36	9.42	33.58	30	9.87	33.61	25.91	210	0.06

CREST; July 10, 1954; 1418 GCT; 36°19'N, 123°09'W; sounding, 1800 fm; wind, 340°, force 4; weather, overcast; sea, moderate; wire angle, 10°. 67.65

0	16.0	32.98	0	16.0	32.98	24.22	371	0.00
11	16.06	32.95	10	16.03	32.95	24.19	374	0.04
30	15.98	32.94	20	16.00	32.94	24.19	374	0.08
46	13.88	33.13	30	15.98	32.94	24.19	374	0.11
55	13.48	33.14	50	13.65	33.14	24.84	312	0.18
64	11.93	33.05	75	10.65	33.13	25.40	259	0.25
75	10.65	33.13	100	9.25	33.37	25.82	219	0.31
85	9.72	33.21	150	8.39	33.90	26.37	166	0.41
98	9.33	-	200	7.73	33.99	26.54	150	0.49
109	9.02	33.46	250	6.83	34.03	26.70	135	0.56
133	8.60	33.77	300	6.23	34.06	26.80	126	0.63
160	8.28	33.95	400	5.51	34.13	26.95	111	0.75
215	7.51	34.00	500	5.02	34.20	27.06	101	0.86
277	6.44	-	600	4.67	34.30	27.18	90	0.97
391	5.58	34.12						
519	4.94	34.22						
655	4.50	34.35						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

70.52

CREST; July 13, 1954; 1141 GCT; 36°08'N, 121°49'W; sounding, 380 fm; wind, 300°, force 3; weather, fog; sea, slight; wire angle, 02°.

0	12.2	33.58	0	12.2	33.58	25.47	252	0.00
11	11.66	33.68	10	11.70	33.68	25.64	236	0.02
32	10.14	33.69	20	10.77	33.69	25.82	219	0.05
42	9.78	33.86u	30	10.23	33.69	25.91	210	0.07
52	9.61	33.77	50	9.64	33.77	26.07	195	0.11
63	9.30	33.77	75	9.03	33.84	26.23	180	0.16
83	8.76	-	100	8.57	33.85	26.31	172	0.20
93	8.64	33.77	150	(8.12)	(33.97)	(26.47)	(157)	(0.28)
102	8.54	33.86	200	(7.81)	(34.08)	(26.60)	(145)	(0.36)
122	8.28	33.89	250	(7.47)	(34.11)	(26.67)	(138)	(0.43)
			300	(7.21)	(34.15)	(26.74)	(131)	(0.50)
			400	(6.84)	(34.22)	(26.85)	(121)	(0.63)

70.60

CREST; July 13, 1954; 0540 GCT; 35°52'N, 122°23'W; sounding, 1920 fm; wind, 310°, force 4; weather, cloudy; sea, moderate; wire angle, 22°.

0	13.7	33.38	0	13.7	33.38	25.02	295	0.00
10	13.02	33.32	10	13.02	33.32	25.11	286	0.03
24	12.21	33.36	20	12.46	33.34	25.23	275	0.06
53	11.19	33.52	30	12.04	33.40	25.36	262	0.08
63	10.46	33.55	50	11.41	33.51	25.56	243	0.14
72	9.77	33.60	75	9.61	33.61	25.95	206	0.19
86	9.22	33.65	100	8.77	33.67	26.13	189	0.24
105	8.64	33.68	150	8.10	33.92	26.43	161	0.33
130	8.33	33.86	200	7.41	33.96	26.56	148	0.41
157	8.02	33.93	250	6.90	34.03	26.69	136	0.48
208	7.33	33.97	300	6.61	34.08	26.77	128	0.55
279	6.70	34.06	400	6.17	34.16	26.89	117	0.68
378	6.32	34.14	500	5.50	34.22	27.02	105	0.79
508	5.46	34.22	600	5.11	34.29	27.12	95	0.90
686	4.80	34.35	700	4.74	34.36	27.22	86	0.10
910	4.04	34.42	800	4.39	34.39	27.28	80	1.09
1208	3.32	34.51	1000	3.80	34.45	27.39	70	1.25

70.80

CREST; July 12, 1954; 1941 GCT; 35°11.5'N, 123°47.5'W; sounding, 2200 fm; wind, 330°, force 5; weather, overcast; sea, moderate; wire angle, 25°.

0	16.7	33.04	0	16.7	33.04	24.10	382	0.00
10	16.58	33.03	10	16.58	33.03	24.12	380	0.04
24	16.55	33.02	20	16.56	33.02	24.12	380	0.08
51	16.06	33.03	30	16.32	33.02	24.17	376	0.11
61	15.62	33.04	50	16.07	33.03	24.24	369	0.19
71	13.99	33.02	75	13.86	33.02	24.71	324	0.28
85	13.60	33.04	100	12.17	33.05	25.06	291	0.35
103	11.86	33.05	150	9.20	33.37	25.83	218	0.48
126	10.03	33.17	200	8.30	33.82	26.32	171	0.58
150	9.20	33.37	250	7.51	33.93	26.53	151	0.66
199	8.30	33.82	300	6.88	33.98	26.65	140	0.74
268	7.28	33.95	400	6.07	34.07	26.83	123	0.87
363	6.28	34.04	500	5.52	34.17	26.98	109	1.00
491	5.58	34.16	600	5.03	34.24	27.09	98	1.10
664	4.76	34.29	700	4.64	34.31	27.19	89	1.20
884	4.12	34.45	800	4.35	34.40	27.29	79	1.30
1179	3.34	34.51	1000	3.81	34.48	27.41	68	1.46

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; July 13, 1954; 2142 GCT; 35°19.5'N, 121°58.5'W; sounding, 1300 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 22°. 73.60

0	13.5	33.37	0	13.5	33.37	25.05	292	0.00
9	12.87	33.32	10	12.87	33.32	25.14	283	0.03
29	11.65	33.64	20	12.18	33.53	25.43	256	0.06
38	11.28	33.65	30	11.61	33.64	25.63	237	0.08
47	11.16	33.69	50	10.97	33.71	25.80	221	0.13
56	10.05	33.74	75	9.36	33.86	26.19	184	0.18
65	9.66	33.78	100	9.20	34.09	26.39	164	0.22
74	9.36	33.85	150	8.72	34.12	26.49	155	0.30
83	9.39	33.99	200	7.90	34.10	26.60	144	0.38
91	9.27	34.05	250	7.50	34.16	26.71	134	0.45
112	9.10	34.11	300	7.09	34.19	26.79	127	0.52
139	8.94	34.04u	400	6.40	34.27	26.95	111	0.64
182	8.02	34.09a)	500	5.88	34.32	27.05	102	0.75
235	7.65	34.14						
329	6.88	34.21						
438	6.17	34.29						
557	5.65	34.34						

CREST; July 14, 1954; 0804 GCT; 34°54.5'N, 121°13'W; sounding, 310 fm; wind, 330°, force 4; weather, overcast; sea, moderate; wire angle, 20°. 77.55

0	14.0	33.59	0	14.0	33.59	25.12	285	0.00
10	13.97	33.60	10	13.97	33.60	25.13	284	0.03
29	12.31	33.62	20	13.19	33.61	25.30	268	0.06
39	10.76	33.66	30	12.22	33.62	25.50	249	0.08
48	10.24	33.69	50	10.17	33.71	25.94	207	0.13
58	9.91	33.78	75	9.67	33.84	26.12	190	0.18
67	9.79	33.78	100	9.17	34.00	26.33	170	0.22
77	9.65	33.87	150	8.90	34.09	26.44	160	0.31
85	9.50	33.94	200	8.64	34.19	26.56	148	0.39
94	9.24	33.98	250	8.30	34.21	26.63	142	0.46
113	9.08	34.03	300	7.98	34.26	26.72	133	0.53
137	8.96	34.07	400	7.38	34.34	26.87	119	0.66
154	8.88	34.09	500	(6.63)	(34.32)	(26.95)	(111)	(0.79)
192	8.70	34.18						
267	8.18	34.22						
366	7.63	34.34						
483	6.73	34.32						

CREST; July 15, 1954; 0206 GCT; 33°49'N, 121°50'W; sounding, 2000 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 24°. 80.70

0	16.0	33.19	0	16.0	33.19	24.38	356	0.00
10	15.82	33.19	10	15.82	33.19	24.42	352	0.04
24	14.81	33.08	20	15.54	33.11	24.42	352	0.07
53	12.20	33.44	30	13.62	33.11	24.83	313	0.10
61	11.25	33.30	50	12.40	33.43	25.32	266	0.16
71	10.16	33.29	75	10.03	33.33	25.66	234	0.22
84	9.90	33.60	100	9.50	33.64	25.99	202	0.28
104	9.37	33.65	150	8.33	33.92	26.40	164	0.37
126	8.67	33.84	200	7.81	34.14	26.65	140	0.45
153	8.30	33.93						
202	7.78	34.14						

a) Alternate value, 33.93‰, not used in interpolation.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
82.47	CREST; July 16, 1954; 1514 GCT; 34°15'N, 119°58'W; sounding, 300 fm; wind, 240°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.							
0	18.0	33.46	0	18.0	33.46	24.11	382	0.00
10	15.96	33.50	10	15.96	33.50	24.62	333	0.04
30	12.79	33.36	20	14.40	33.42	24.90	306	0.07
40	11.62	33.38	30	12.79	33.36	25.19	279	0.10
50	10.32	33.61	50	10.32	33.61	25.83	218	0.15
61	10.11	33.68	75	9.58	33.79	26.10	192	0.20
70	9.79	33.72	100	9.05	33.98	26.33	170	0.24
81	9.32	33.89	150	8.81	34.09	26.46	158	0.33
91	9.11	33.96	200	8.60	34.17	26.55	149	0.41
100	9.05	33.98	250	8.27	34.15	26.59	146	0.48
120	8.97	34.02						
143	8.83	34.06						
164	8.75	34.14						
203	8.58	34.17						
284	8.00	34.14						
83.43	CREST; July 16, 1954; 1836 GCT; 34°08'N, 119°34'W; sounding, 157 fm; wind, 280°, force 1; weather, clear; sea, slight; wire angle, 04°.							
0	18.05	33.46	0	18.05	33.46	24.10	382	0.00
10	17.56	33.49	10	17.56	33.49	24.24	369	0.04
15	17.42	33.42	20	17.10	33.45	24.32	361	0.07
20	-	33.45	30	13.60	33.51	25.14	283	0.11
25	15.68	33.44	50	11.62	33.41	25.45	254	0.16
30	13.60	33.51	75	10.32	33.56	25.79	222	0.22
35	12.32	33.43	100	9.26	33.96	26.28	175	0.27
45	12.00	33.42	150	8.88	34.12	26.47	157	0.35
55	11.23	33.40	200	8.74	34.22	26.57	148	0.43
66	10.56	33.49						
76	10.29	33.57						
95	9.33	33.87						
109	9.14	34.03						
139	8.90	34.09						
167	-	34.16						
202	8.74	34.22						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; July 16, 1954; 0909 GCT; 33°52'N, 120°08.5'W; sounding, 88 fm; wind, 300°, force 5; weather, overcast; sea, rough; wire angle, 08°. 83.51

0	16.02	33.40	0	16.02	33.40	24.53	341	0.00
10	13.66	33.30	10	13.66	33.30	24.96	300	0.03
15	11.60	33.30	20	11.50	33.36	25.43	256	0.06
20	11.50	33.36	30	10.80	33.42	25.60	240	0.09
25	11.48	33.40	50	9.95	33.53	25.83	218	0.13
30	10.80	33.42	75	9.43	33.69	26.04	198	0.18
35	10.56	33.40	100	9.16	33.85	26.21	182	0.23
45	10.18	33.49						
55	9.74	-						
65	9.59	33.63						
81	9.34	33.73						
101	9.14	33.86						

CREST; July 16, 1954; 2339 GCT; 34°00'N, 119°04'W; sounding, 250 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 12°. 85.39

0	21.04	33.53	0	21.04	33.53	23.39	450	0.00
15	18.65	33.47	10	19.52	33.49	23.76	415	0.04
25	12.76	33.35	20	16.21	33.40	24.49	345	0.08
35	11.49	33.46	30	11.95	33.41	25.39	260	0.11
40	11.11	33.47	50	10.63	33.53	25.72	228	0.16
45	10.96	33.58	75	(10.02)				
50	10.63	33.53						
55	10.39	33.57						
60	10.28	33.66a)						
70	10.08	33.74a)						

CREST; July 17, 1954; 0336 GCT; 33°47'N, 119°31'W; sounding, 1000 fm; wind, 220°, force 2; weather, partly cloudy; sea, slight; wire angle, 03°. 85.45

0	20.5	33.49	0	20.5	33.49	23.50	440	0.00
11	16.81	33.51	10	18.09	33.51	24.13	380	0.04
31	11.81	33.37	20	13.68	33.45	25.08	289	0.07
41	11.44	33.39	30	11.90	33.37	25.36	262	0.10
51	10.59	33.46	50	10.68	33.44	25.64	236	0.15
61	9.87	33.61	75	9.68	33.64	25.96	205	0.21
72	9.72	33.62	100	9.24	33.80	26.16	186	0.26
81	9.50	33.71						
92	9.43	33.74						
100	9.24	33.80						
126	8.82	33.94						

a) Salinity samples at 60 and 70 meters appear to have been reversed; they are assumed to be listed in correct order.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

85.55 CREST; July 17, 1954; 0931, 0959 GCT; 33°27'N, 120°12.5'W; sounding, 650 fm; wind, 310°, force 4; weather, clear; sea, moderate; wire angle, 28°, 28°.

0	15.4	33.55	0	15.4	33.55	24.79	317	0.00
10	15.38	33.56	10	15.38	33.56	24.80	316	0.03
28	10.84	33.64	20	12.06	33.60	25.51	248	0.06
42	10.00	33.68	30	10.68	33.65	25.80	221	0.08
50	9.84	33.73	50	9.84	33.73	26.01	201	0.13
59	9.42	33.83	75	8.86	33.85	26.26	177	0.17
66	9.04	33.84	100	8.66	33.92	26.35	168	0.22
75	8.86	-	150	8.54	34.10	26.51	153	0.30
86	8.68	33.86	200	8.06	34.15	26.62	143	0.37
94	8.66	33.87	250	7.54	34.21	26.74	131	0.44
112	8.68	34.01	300	7.33	34.32	26.86	120	0.51
135	8.59	34.07	400	6.72	34.40	27.01	106	0.63
178	8.43	34.13	500	6.10	34.41	27.10	98	0.74
233	7.62	34.18						
334	7.19	34.38						
455	6.36	34.41						
587	5.70	34.34u						

87.40 CREST; July 18, 1954; 0229, 0243 GCT; 33°40.5'N, 118°59'W; sounding, 500 fm; wind, 240°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°, missing.

0	21.1	33.55	0	21.1	33.55	23.39	450	0.00
10	18.03	33.50	10	18.03	33.50	24.14	379	0.04
15	16.64	33.47	20	15.44	33.47	24.72	323	0.08
20	15.44	33.47	30	13.06	33.40	25.16	281	0.11
			50	10.64	33.50	25.69	231	0.16
25	13.78	33.44	75	9.72	33.69	26.00	202	0.21
30	13.06	33.40	100	9.28	33.80	26.16	186	0.26
41	11.29	33.46	150	8.68	34.07	26.46	158	0.35
51	10.60	33.51	200	8.40	34.20	26.61	144	0.43
66	10.06	33.58	250	8.09	34.28	26.72	133	0.50
81	9.52	33.73	300	7.79				
101	9.26	33.81	400	7.04				
125	8.89	33.93						
166	8.57	34.14						
206	8.37	34.21						
256	8.03	34.29						
330	7.60	-						
412	6.92	-						

87.50 CREST; July 17, 1954; 2129 GCT; 33°20'N, 119°39.5'W; sounding, 40 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.

0	16.12	33.48	0	16.12	33.48	24.57	338	0.00
10	12.29	33.46	10	12.29	33.46	25.36	262	0.03
15	11.32	33.48	20	10.70	33.55	25.72	228	0.06
21	10.65	33.55	30	10.65	33.51	25.70	230	0.08
26	10.67	33.52	50	9.52				
31	10.64	33.51						
36	9.62	-						
41	9.59	-						
51	9.50	-						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; July 17, 1954; 1542 GCT; 32°56.5'N, 120°21'W; sounding, 500 fm; wind, 320°, force 3; weather, fog: sea, moderate; wire angle, 10°. 87.60

0	14.6	33.55	0	14.6	33.55	24.96	300	0.00
10	14.46	33.53	10	14.46	33.53	24.98	299	0.03
30	14.44	33.56	20	14.44	33.55	25.00	297	0.06
46	11.80	33.57	30	14.44	33.56	25.00	297	0.09
56	11.40	33.57	50	11.63	33.57	25.57	242	0.14
65	10.83	33.57	75	10.58	33.60	25.78	222	0.20
75	10.58	33.60	100	9.31	33.67	26.05	197	0.26
84	10.20	33.57	150	8.77	33.99	26.38	166	0.35
98	9.36	33.60	200	8.37	34.14	26.56	148	0.43
107	9.14	33.80	250	7.73	34.23	26.73	132	0.50
131	8.83	34.02	300	7.24	34.27	26.83	123	0.56
160	8.73	33.98	400	6.49	34.32	26.98	109	0.68
211	8.24	34.17	500	6.02	34.40	27.10	97	0.80
273	7.46	34.25	600	5.54	34.42	27.17	91	0.90
383	6.59	34.31						
509	5.99	34.45u						
641	5.30	34.40						

CREST; July 18, 1954; 1047, 1102 GCT; 33°28.5'N, 117°47'W; sounding, 100 fm; wind, calm; weather, overcast; sea, slight; wire angle, 00°, 00°. 90.28

0	21.09	33.48	0	21.09	33.48	23.34	455	0.00
11	20.0	-	10	20.00	33.45	23.60	430	0.04
16	15.69	33.42	20	14.70	33.40	24.82	314	0.08
21	14.49	33.39	30	12.58	33.38	25.24	274	0.11
26	13.00	33.34	50	10.73	33.49	25.67	233	0.16
31	12.45	-	75	9.88	33.61	25.91	210	0.22
36	11.76	33.44	100	9.42	33.78	26.12	190	0.27
46	10.86	33.49						
57	10.56	33.50						
64	10.08	33.57						
79	9.81	33.63						
98	9.46	33.77						
123	9.15	33.89						

CREST; July 18, 1954; 1703 GCT; 33°11'N, 118°22'W; sounding, 650 fm; wind, missing; weather, partly cloudy; sea, slight; wire angle, 00°. 90.37

0	21.6	33.52	0	21.6	33.52	23.23	465	0.00
11	20.36	33.71	10	20.50	33.71	23.67	423	0.04
31	14.74	-	20	18.06	33.61	24.21	372	0.08
41	12.71	33.40	30	15.00	33.48	24.82	314	0.12
51	11.26	33.50	50	11.44	33.50	25.55	244	0.18
61	10.38	33.50	75	9.95	33.60	25.89	212	0.23
72	10.11	33.56	100	9.45	33.77	26.10	192	0.28
82	9.70	33.66	150	8.76	33.99	26.39	164	0.37
92	9.57	33.73	200	8.66	34.12	26.50	154	0.46
101	9.42	33.78	250	8.28	34.23	26.65	140	0.53
125	8.91	33.89	300	7.83	34.26	26.74	131	0.60
154	8.74	34.00	400	7.05	34.30	26.88	118	0.73
203	8.64	34.13	500	6.40	34.33	26.99	108	0.85
262	8.18	34.24	600	5.81	34.34	27.08	99	0.96
365	7.29	34.29						
485	6.49	34.33						
612	5.76	34.34						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
90.55	CREST; July 20, 1954; 0138 GCT; 32°35'N, 119°37'W; sounding, 500 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 40°.							
0	15.7	33.55	0	15.7	33.55	24.72	323	0.00
8	15.42	33.55	10	15.41	33.55	24.79	317	0.03
24	14.28	33.52	20	14.98	33.52	24.86	310	0.06
31	13.02	33.51	30	13.05	33.51	25.25	273	0.09
40	12.96	33.48	50	11.20	33.50	25.59	240	0.14
47	11.61	33.48	75	9.88	33.65	25.94	207	0.20
53	11.04	33.53	100	9.05	33.82	26.21	182	0.25
60	10.99	33.54	150	8.55	34.05	26.47	157	0.34
65	10.80	33.55	200	8.12	34.22	26.66	139	0.41
72	10.07	33.60	250	7.60	34.27	26.78	128	0.48
88	9.26	33.77	300	7.25	34.28	26.84	122	0.54
107	8.96	33.84	400	6.52	34.35	26.99	108	0.66
139	8.65	33.99						
177	8.34	34.19						
249	7.60	34.27a)						
334	7.03	34.29						
439	6.24	34.39						
90.70	CREST; July 20, 1954; 0954 GCT; 32°07'N, 120°34'W; sounding, 2100 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 06°.							
2	15.4	33.60	0	(15.41)	(33.60)	(24.82)	(314)	(0.00)
12	15.10	33.58	10	15.12	33.58	24.87	309	0.03
27	14.90	33.57	20	15.03	33.57	24.88	308	0.06
58	11.60	33.60	30	14.79	33.57	24.94	302	0.09
68	10.48	33.68	50	13.30	33.59	25.26	272	0.15
78	10.02	33.64	75	10.15	33.65	25.89	212	0.21
94	9.53	33.69	100	9.38	33.72	26.08	194	0.26
114	9.08	33.80	150	8.58	34.01	26.43	161	0.35
138	8.73	33.96	200	8.18	34.13	26.58	146	0.43
167	8.39	34.06						
220	8.04	34.16						
93.30	CREST; July 21, 1954; 0638 GCT; 32°50'N, 117°31.5'W; sounding, 470 fm; wind, 150°, force 1; weather, overcast; sea, slight; wire angle, 03°.							
0	21.8	33.49	0	21.8	33.49	23.15	473	0.00
10	21.95	33.51	10	21.95	33.51	23.12	476	0.05
30	13.30	33.33	20	17.00	33.44	24.34	360	0.09
40	12.12	33.39	30	13.30	33.33	25.06	291	0.12
50	11.33	33.45	50	11.33	33.45	25.53	246	0.18
61	10.52	33.46	75	10.11	33.57	25.84	217	0.23
71	10.24	33.53	100	9.57	33.68	26.01	201	0.29
81	9.98	33.63	150	9.02	33.94	26.31	172	0.38
91	9.80	33.65	200	8.87	34.12	26.47	157	0.47
101	9.55	33.69	250	8.70	34.19	26.55	149	0.54
125	9.23	33.77	300	8.28	34.22	26.64	141	0.62
154	9.00	33.97	400	7.47	34.27	26.80	126	0.76
203	8.85	34.13	500	6.98	34.34	26.92	114	0.88
262	8.66	34.20	600	6.00	34.38	27.08	99	1.00
366	7.63	34.24						
486	7.06	34.34						
611	5.88	34.38						

a) Alternate value, 34.43‰, not used in interpolation.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; July 20, 1954; 1941 GCT; 32°11'N, 118°53.5'W; sounding, 800 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 23°. 93.50

0	17.6	33.49	0	17.6	33.49	24.23	370	0.00
10	17.13	33.49	10	17.13	33.49	24.35	359	0.04
29	15.02	33.55	20	16.13	33.53	24.61	334	0.07
38	13.80	33.46	30	14.90	33.55	24.90	306	0.10
48	13.04	33.45	50	12.85	33.45	25.24	274	0.16
57	12.05	33.47	75	10.66	33.48	25.67	233	0.22
66	11.42	33.48	100	9.59	33.64	25.98	204	0.28
75	10.66	33.48	150	8.82	34.07	26.44	160	0.37
84	10.13	33.49	200	8.27	34.17	26.60	145	0.45
93	9.78	33.57	250	7.75	34.19	26.70	135	0.52
113	9.30	33.80	300	7.13	34.19	26.78	128	0.59
139	8.96	34.02	400	6.43	34.22	26.90	116	0.72
182	8.42	34.16	500	5.97	34.33	27.05	102	0.83
232	7.96	34.19						
324	6.88	34.19						
433	6.26	34.25						
555	5.72	34.41						

CREST; July 21, 1954; 1838 GCT; 31°57'N, 117°50.5'W; sounding, 720 fm; wind, 240°, force 1; weather, overcast; sea, moderate; wire angle, 15°. 97.40

0	20.4	33.50	0	20.4	33.50	23.53	437	0.00
10	20.03	33.45	10	20.03	33.45	23.59	431	0.04
30	14.74	33.21	20	16.98	33.31	24.24	369	0.08
40	13.62	33.24	30	14.74	33.21	24.67	328	0.12
49	12.02	33.19	50	11.96	33.19	25.21	277	0.18
60	11.35	33.20	75	10.59	33.32	25.56	243	0.24
69	10.85	33.26	100	9.41	33.64	26.01	201	0.30
79	10.40	33.35	150	9.22	34.03	26.34	169	0.39
88	9.96	33.41	200	8.87	34.10	26.45	159	0.48
97	9.42	33.59	250	8.99	34.28	26.58	146	0.56
121	9.32	33.86	300	8.10	34.25	26.69	136	0.63
148	9.22	34.02	400	7.17	34.26	26.83	123	0.76
196	8.86	34.09	500	6.61	34.32	26.96	110	0.89
252	8.99	34.28	600	(5.90)	(34.34)	(27.07)	(100)	(1.00)
353	7.37	34.21						
469	6.80	34.31						
595	5.94	34.34						

HORIZON; July 18, 1954; 1625, 1644 GCT; 31°42'N, 116°43.5'W; sounding, 100 fm; wind, 320°, force 4; weather, overcast; sea, slight; wire angle, missing, missing. 100.29

0	17.38	33.46	0	17.38	33.46	24.26	367	0.00
10	14.57	33.39	10	14.57	33.39	24.84	312	0.03
15	12.74	33.46	20	11.88	33.25	25.27	271	0.06
20	11.88	33.25	30	11.22	33.26	25.40	259	0.09
25	11.30	33.22	50	10.80	33.41	25.59	240	0.14
30	11.22	33.26	75	10.01	33.55	25.84	217	0.20
35	11.18	33.39	100	9.67	33.67	25.99	202	0.25
46	10.96	33.40						
56	10.53	33.43						
65	10.27	33.50						
80	9.92	33.57						
93	9.76	33.63						
117	9.48	33.73						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m
100.50	HORIZON; July 18, 1954; 0451 GCT; 31°02.5'N, 118°08.5'W; sounding, 920 fm; wind, 290°, force 3; weather, cloudy; sea, rough; wire angle, 21°.							
0	18.3	-	0	18.3	(33.45)	(24.03)	(389)	(0.00)
10	18.20	33.45	10	18.20	33.45	24.06	386	0.04
25	17.36	33.33	20	17.71	33.37	24.12	380	0.08
49	15.60	33.26	30	16.93	33.31	24.26	367	0.12
58	15.02	33.26	50	15.57	33.26	24.53	341	0.19
68	14.18	33.23	75	13.30	33.24	24.99	298	0.27
77	13.02	33.24	100	10.87	33.22	25.43	256	0.34
96	11.06	33.22	150	9.11	33.77	26.16	186	0.45
119	10.07	33.47	200	8.48	34.06	26.48	156	0.54
146	9.18	33.72	250	7.50	34.11	26.67	138	0.61
190	8.66	34.05	300	7.06	34.14	26.75	130	0.68
252	7.48	34.11	400	6.16	34.22	26.94	112	0.80
347	6.63	34.18	500	5.71	34.32	27.07	100	0.92
465	5.82	34.28	600	5.43	34.41	27.18	90	1.02
634	5.32	34.43	700	5.05	34.45	27.26	82	1.11
845	4.46	34.49	800	4.62	34.48	27.33	75	1.20
1144	3.59	34.59	1000	3.96	34.54	27.45	64	1.36
100.70	HORIZON; July 17, 1954; 1858 GCT; 30°18.5'N, 119°21.5'W; sounding, 1920 fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 10°.							
0	17.6	-	0	17.6	(33.28)	(24.07)	(385)	(0.00)
10	17.31	33.28	10	17.31	33.28	24.14	379	0.04
25	15.83	33.21	20	16.31	33.23	24.34	360	0.08
56	14.70	33.20	30	15.65	33.21	24.47	347	0.11
66	13.96	33.15	50	14.92	33.21	24.63	332	0.18
76	13.64	33.16	75	13.68	33.16	24.85	311	0.26
91	13.16	33.26	100	12.27	33.25	25.20	278	0.33
111	10.98	33.24	150	9.17	33.61	26.02	200	0.45
135	9.52	33.48	200	8.75	34.04	26.43	161	0.55
164	8.95	33.71	250	8.10	34.08	26.56	148	0.62
218	8.65	34.08	300	7.20	34.07	26.68	137	0.70
296	7.26	34.07	400	6.39	34.18	26.88	118	0.83
403	6.35	34.19	500	6.01	34.30	27.02	105	0.95
546	5.84	34.34	600	5.51	34.38	27.15	92	1.06
737	4.82	34.46	700	4.99	34.44	27.25	83	1.15
974	4.05	34.51	800	4.60	34.48	27.33	75	1.24
1286	3.22	34.57	1000	3.99	34.52	27.43	66	1.40
103.30	HORIZON; July 16, 1954; 1811 GCT; 31°06'N, 116°25'W; sounding, 40 fm; wind, 180°, force 2; weather, overcast; sea, rough; wire angle, 00°.							
0	18.65	33.38	0	18.65	33.38	23.89	402	0.00
10	13.85	33.34	10	13.85	33.34	24.96	300	0.04
15	12.20	33.24	20	11.74	33.30	25.34	264	0.06
20	11.74	33.30	30	11.44	33.33	25.42	257	0.09
25	11.70	33.33	50	10.87	33.37	25.55	244	0.14
30	11.44	33.33						
35	11.34	33.37						
40	11.22	33.35						
50	10.87	33.37						
60	10.38	33.45						

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

HORIZON; July 16, 1954; 2330 GCT; 30°45'N, 117°07'W; sounding, 950 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 21°. 103.40

0	19.5	-	0	19.5	(33.47)	(23.75)	(416)	(0.00)
10	18.66	33.46	10	18.66	33.46	23.95	397	0.04
29	16.87	33.46	20	17.17	33.46	24.31	362	0.08
43	15.85	33.42	30	16.86	33.46	24.39	355	0.12
52	14.62	33.38	50	14.92	33.39	24.77	319	0.18
60	13.56	33.31	75	11.50	33.28	25.37	262	0.26
70	12.25	33.29	100	10.20	33.45	25.73	227	0.32
79	11.10	33.27	150	8.89	33.80	26.22	181	0.42
93	10.52	33.33	200	8.00	33.98	26.49	155	0.50
102	10.18	33.46	250	7.49	34.08	26.65	140	0.58
125	9.81	33.68	300	7.20	34.17	26.76	129	0.65
153	8.80	33.81	400	6.70	34.26	26.90	116	0.78
202	7.96	33.99	500	6.03	34.29	27.01	106	0.90
262	7.39	34.10	600	5.47	34.33	27.11	96	1.00
370	6.86	34.25						
496	6.06	34.29						
630	5.31	34.34						

HORIZON; July 16, 1954; 1202 GCT; 30°21'N, 116°23.5'W; sounding, 950 fm; wind, 300°, force 2; weather, overcast; sea, slight; wire angle, 07°. 107.35

0	18.5	-	0	18.5	(33.48)	(24.01)	(391)	(0.00)
10	18.4	-	10	18.4	(33.48)	(24.03)	(389)	(0.04)
20	18.30	33.48	20	18.30	33.48	24.06	386	0.08
30	16.56	33.37	30	16.56	33.37	24.39	355	0.12
40	15.56	33.28	50	14.08	33.21	24.81	315	0.18
51	13.92	33.20	75	11.05	33.12	25.32	266	0.26
61	12.70	33.17	100	9.98	33.41	25.74	226	0.32
70	11.35	33.10	150	9.98	34.17	26.33	170	0.42
80	10.70	33.18	200	10.18	34.24	26.35	168	0.50
90	10.03	33.38	250	9.40	34.32	26.54	150	0.59
101	9.97	33.41	300	8.90	34.35	26.65	140	0.66
126	9.64	33.81	400	8.02	34.36	26.79	127	0.80
155	10.04	34.19	500	7.02	34.36	26.93	113	0.93
202	10.17	34.24	600	6.10	34.34	27.04	103	1.04
260	9.25	34.34						
362	8.40	34.36						
480	7.22	34.36						
607	6.04	34.34						

HORIZON; July 15, 1954; 0946 GCT; 29°52'N, 115°54.5'W; sounding, 95 fm; wind, 020°, force 4; weather, sky obscured; sea, rough; wire angle, 30°. 110.33

0	18.74	33.40	0	18.74	33.40	23.89	402	0.00
10	18.68	33.41	10	18.68	33.41	23.91	400	0.04
14	18.16	33.43	20	16.27	33.28	24.39	355	0.08
19	16.56	33.33	30	13.23	33.16	24.94	302	0.11
23	15.36	33.22	50	11.25	33.22	25.37	262	0.17
27	13.91	33.18	75	9.99	33.57	25.86	215	0.23
31	13.16	33.16	100	9.70	33.77	26.06	196	0.28
40	12.59	33.22						
48	11.39	33.22						
56	10.98	33.23						
69	10.20	33.48						
84	9.80	33.67						
101	9.70	33.77						
126	9.62	33.85						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

110.40 HORIZON; July 15, 1954; 1350 GCT; 29°36.5'N, 116°16'W; sounding, 1250 fm; wind, 330°, force 4; weather, partly cloudy; sea, moderate; wire angle, 21°.

0	19.1	-	0	19.1	(33.47)	(23.85)	(406)	(0.00)
10	19.18	33.47	10	19.18	33.47	23.83	408	0.04
29	18.39	33.58	20	19.14	33.52	23.88	403	0.08
52	15.81	33.34	30	18.24	33.58	24.15	378	0.12
67	14.71	33.33	50	15.96	33.35	24.51	343	0.19
76	13.58	33.30	75	13.71	33.30	24.95	301	0.27
90	11.82	33.33	100	11.11	33.39	25.52	247	0.34
113	10.42	33.58	150	9.65	33.94	26.20	183	0.45
145	9.62	33.89	200	9.86	34.35	26.49	155	0.54
168	9.94	34.18	250	9.48	34.42	26.61	144	0.62
225	9.70	34.40	300	8.87	34.42	26.71	134	0.69
301	8.82	34.42	400	7.53	34.40	26.89	117	0.82
409	7.45	34.40	500	6.66	34.41	27.02	105	0.94
554	6.26	34.42	600	5.92	34.43	27.13	94	1.04
751	5.00	-	700	5.28	34.44	27.22	86	1.14
991	4.14	34.47	800	4.80	34.45	27.28	80	1.23
1320	3.28	34.56	1000	4.14	34.47	27.37	72	1.40

110.60 HORIZON; July 16, 1954; 0000 GCT; 28°56'N, 117°45'W; sounding, 2150 fm; wind, 330°, force 4; weather, overcast; sea, moderate; wire angle, 17°.

0	18.5	-	0	18.5	(33.46)	(23.99)	(393)	(0.00)
10	18.38	33.46	10	18.38	33.46	24.02	390	0.04
30	17.30	33.37	20	18.31	33.45	24.03	389	0.08
55	15.27	33.27	30	17.30	33.37	24.21	372	0.12
68	13.98	33.13	50	15.60	33.29	24.54	340	0.19
78	12.68	33.04	75	13.07	33.05	24.89	307	0.27
92	11.76	33.18	100	11.19	33.23	25.39	260	0.34
115	10.29	33.30	150	9.13	33.63	26.05	197	0.46
147	9.13	33.58	200	8.70	34.03	26.43	161	0.55
170	9.02	33.86	250	8.30	34.16	26.59	146	0.63
225	8.44	34.11	300	7.96	34.23	26.70	135	0.70
304	7.92	34.23	400	7.00	34.32	26.90	116	0.83
413	6.87	34.33	500	6.20	34.39	27.07	100	0.94
558	5.84	34.42	600	5.60	34.44	27.18	90	1.05
760	4.88	34.49	700	5.13	34.48	27.27	81	1.14
1002	4.00	34.52	800	4.73	34.50	27.33	75	1.23
1332	3.22	34.60	1000	4.01	34.52	27.43	66	1.39

113.35 HORIZON; July 15, 1954; 0049, 0126 GCT; 29°10.5'N, 115°41.5'W; sounding, 1010 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 34°, 37°.

0	19.0	-	0	19.0	(33.36)	(23.79)	(412)	(0.00)
9	18.96	33.36	10	18.96	33.36	23.80	411	0.04
26	17.91	33.40	20	18.46	33.38	23.94	398	0.08
39	16.31	33.31	30	17.46	33.39	24.19	374	0.12
47	15.00	33.26	50	14.52	33.25	24.75	320	0.19
55	13.90	33.24	75	11.91	33.24	25.26	272	0.26
63	13.16	33.20	100	10.60	33.48	25.68	232	0.33
71	12.27	33.22	150	9.06	33.94	26.30	173	0.43
83	11.36	33.27	200	9.29	34.14	26.42	162	0.52
91	10.97	33.39	250	9.14	34.29	26.56	148	0.60
111	10.14	33.54	300	9.00	34.37	26.65	140	0.67
135	9.30	33.76	400	7.76	34.35	26.82	124	0.81
			500	6.76	34.32	26.94	112	0.93
132a)	9.32	33.73						
174	9.43	34.06						
225	9.19	34.20						
320	8.91	34.38						
434	7.35	34.34						
561	6.31	34.32						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; July 14, 1954; 1242 GCT; 28°46'N, 115°01'W; sounding, 70 fm; wind, 300°, force 3; weather, sky obscured; sea, slight; wire angle, 17°. 117.30

0	17.68	33.36	0	17.68	33.36	24.12	380	0.00
10	17.26	33.41	10	17.26	33.41	24.25	368	0.04
15	16.39	33.30	20	15.72	33.25	24.49	345	0.07
20	15.72	33.25	30	13.82	33.18	24.84	312	0.11
25	14.68	33.21	50	11.49	33.36	25.43	256	0.16
30	13.82	33.18	75	10.05	33.80	26.03	199	0.22
34	13.19	33.16	100	(10.20)	(34.03)	(26.18)	(184)	(0.27)
44	12.29	33.28						
54	10.74	33.42						
64	10.00	33.63						
79	10.08	33.84						
98	10.19	34.02						

HORIZON; July 14, 1954; 1704, 1722 GCT; 28°27'N, 115°37'W; sounding, 560 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 20°, 27°. 117.40

0	18.97	33.47	0	18.97	33.47	23.88	403	0.00
10	18.72	33.43	10	18.72	33.43	23.91	400	0.04
30	17.66	33.42	20	18.21	33.43	24.04	388	0.08
44	16.28	33.33	30	17.66	33.42	24.17	376	0.12
53	15.46	33.28	50	15.75	33.29	24.51	343	0.19
62	13.99	33.20	75	12.80	33.24	25.09	288	0.27
71	13.10	33.23	100	10.62	33.52	25.71	229	0.34
80	12.35	33.26	150	10.40	34.17	26.26	177	0.44
			200	10.30	34.38	26.44	160	0.52
89	11.51	33.30	250	10.28	34.51	26.54	150	0.60
98	10.67	33.45	300	10.01	34.53	26.60	145	0.68
146	10.41	34.15	400	8.70				
195	10.30	34.36	500	7.52				
252	10.28	34.51	600	6.52				
359	9.26	34.54						
484	7.67	34.41u						
618	6.40	34.40u						

HORIZON; July 14, 1954; 0620 GCT; 28°23'N, 114°14.5'W; sounding, 45 fm; wind, 320°, force 4; weather, partly cloudy; sea, slight; wire angle, 07°. 120.25

0	19.54	33.43	0	19.54	33.43	23.71	420	0.00
10	18.52	33.38	10	18.52	33.38	23.93	399	0.04
15	14.17	33.31	20	13.08	33.18	24.99	298	0.08
20	13.08	33.18	30	12.07	33.26	25.25	273	0.10
26	12.60	33.27	50	10.77	33.47	25.65	235	0.16
30	12.07	33.26						
36	11.55	33.22						
41	11.36	33.30						
52	10.65	33.49						
62	10.26	33.57						

HORIZON; July 14, 1954; 0152 GCT; 28°03'N, 114°53'W; sounding, 45 fm: wind, 320°, force 4; weather, partly cloudy; sea, slight; wire angle, 07°. 120.35

0	18.60	33.30	0	18.60	33.30	23.84	407	0.00
10	18.43	33.28	10	18.43	33.28	23.87	404	0.04
15	18.43	33.29	20	18.22	33.29	23.93	399	0.08
20	18.22	33.29	30	17.43	33.30	24.13	380	0.12
25	18.06	33.30	50	16.04	33.30	24.45	349	0.19
30	17.43	33.30						
34	17.08	33.37						
39	16.74	33.30						
48	16.31	33.30						
58	13.67	33.30						

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5407

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

120.50 HORIZON; July 13, 1954; 1036, 1117 GCT; 33°33.5'N, 115°52.5'W; sounding, 2200 fm; wind, 320°, force 3; weather, cloudy; sea, slight; wire angle, 15°, 26°.

0	18.4	-	0	18.4	(33.57)	(24.10)	(382)	(0.00)
10	18.07	33.57	10	18.07	33.57	24.18	375	0.04
25	14.36	33.47	20	16.31	33.48	24.53	341	0.07
55	12.06	33.90	30	13.89	33.49	25.06	291	0.10
65	11.16	34.00	50	12.39	33.74	25.56	243	0.16
74	11.02	34.04	75	11.01	34.05	26.05	197	0.21
88	10.95	34.16	100	10.75	34.23	26.24	179	0.26
108	10.70	34.27	150	9.92	34.25	26.40	164	0.35
132	10.82	34.38	200	10.18	34.41	26.48	156	0.43
160	9.72	34.24	250	9.27	34.46	26.67	138	0.51
211	9.96	34.44	300	8.63	34.47	26.78	128	0.58
287	8.78	34.47	400	7.82	(34.47)	(26.91)	(115)	(0.70)
392	7.90	34.47	500	6.89				
532	6.65	-	600	6.17				
727	5.22	-	700	5.40				
			800	4.87				
930	4.37	-	1000	4.20				
1235	3.49	-						

120.70 HORIZON; July 12, 1954; 2338 GCT; 26°55'N, 117°24'W; sounding, 2250 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 06°.

0	20.3	-	0	20.3	(33.64)	(23.67)	(423)	(0.00)
10	19.78	33.64	10	19.78	33.64	23.80	411	0.04
25	18.85	33.60	20	19.11	33.62	23.96	396	0.08
56	12.32	33.48	30	18.26	33.57	24.13	380	0.12
66	11.06	33.56	50	13.39	33.48	25.16	281	0.19
76	10.82	33.62	75	10.84	33.62	25.75	225	0.25
91	10.25	33.83	100	10.11	33.90	26.10	192	0.30
112	10.05	34.00	150	9.58	34.17	26.39	164	0.39
136	10.03	34.15	200	8.84	34.21	26.55	149	0.47
164	9.17	34.18	250	8.55	34.32	26.68	137	0.55
219	8.72	34.23	300	8.18	34.38	26.78	128	0.62
295	8.21	34.38	400	7.30	34.40	26.93	113	0.74
405	7.26	34.40	500	6.38	34.41	27.06	101	0.86
547	6.00	34.42	600	5.68	34.43	27.16	92	0.96
742	4.97	34.47	700	5.16	34.46	27.25	83	1.06

120.90 HORIZON; July 12, 1954; 1519 GCT; 26°12'N, 118°24'W; sounding, 2250 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 21°.

0	19.5	-	0	19.5	(33.48)	(23.75)	(416)	(0.00)
10	19.40	33.48	10	19.40	33.48	23.78	413	0.04
25	18.34	33.49	20	18.71	33.49	23.96	396	0.08
53	15.69	33.32	30	17.80	33.48	24.18	375	0.12
62	14.90	33.25	50	15.97	33.35	24.51	343	0.19
72	13.90	33.30	75	13.52	33.35	25.03	294	0.27
85	12.50	33.46	100	11.26	33.42	25.52	247	0.34
104	11.02	33.42	150	10.03	33.97	26.16	186	0.45
127	10.15	33.62	200	10.10	34.33	26.43	161	0.54
155	10.01	34.02	250	9.10	34.34	26.61	144	0.62
205	10.10	34.34	300	8.46	34.34	26.71	134	0.69
277	8.69	34.34	400	7.52	34.38	26.88	118	0.82
380	7.73	34.38	500	6.65	34.38	27.00	107	0.94
514	6.54	34.38	600	5.99	34.40	27.10	97	1.05
698	5.36	34.43	700	5.36	34.43	27.20	88	1.15
925	4.33	34.52	800	4.88	34.47	27.29	79	1.24
1227	3.42	34.68	1000	4.08	34.55	27.44	65	1.40

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

HORIZON; July 11, 1954; 0947 GCT; 27°18'N, 114°51.5'W; sounding, 585 fm; wind, 300°, force 5; weather, clear; sea, moderate; wire angle, 37°. 123.40

0	19.0	-	0	19.0	(33.48)	(23.88)	(403)	(0.00)
9	18.90	33.48	10	18.89	33.48	23.91	400	0.04
25	16.73	33.40	20	17.07	33.42	24.31	362	0.08
33	16.20	33.37	30	16.45	33.38	24.42	352	0.11
41	14.43	33.34	50	14.14	33.38	24.93	303	0.18
48	14.14	33.35	75	11.30	33.56	25.62	238	0.25
56	14.21	33.51	100	10.81	34.04	26.08	194	0.30
63	12.45	-	150	11.45	34.35	26.21	182	0.40
70	11.82	33.58	200	11.40	34.47	26.31	172	0.49
77	11.17	33.56	250	10.97	34.56	26.46	158	0.57
93	10.68	33.74	300	10.26	34.55	26.58	146	0.65
112	11.17	34.18	400	8.32	34.43	26.80	126	0.80
145	11.43	34.34						
184	11.44	34.41						
254	10.91	34.56						
337	9.56	34.53						
461	7.36	34.31						

HORIZON; July 11, 1954: 0318 GCT; 26°55.5'N, 114°06'W; sounding, 44 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough: wire angle, 13°. 127.34

0	17.58	33.51	0	17.58	33.51	24.25	368	0.00
10	16.40	33.40	10	16.40	33.40	24.45	349	0.04
15	14.89	33.22	20	13.86	33.19	24.84	312	0.07
20	13.86	33.19	30	13.33	33.37	25.09	288	0.10
25	13.33	33.18	50	12.02	33.81	25.68	232	0.15
30	13.33	33.37						
35	12.32	33.33						
40	11.88	33.36						
50	12.02	33.81						
60	11.63	33.90						

HORIZON; July 10, 1954; 1839 GCT; 26°24.5'N, 115°12'W; sounding, 2070 fm; wind, 280°, force 3; weather, cloudy; sea, rough: wire angle, 23°. 127.50

0	19.2	-	0	19.2	(33.40)	(23.77)	(414)	(0.00)
10	18.88	33.38	10	18.88	33.38	23.84	407	0.04
29	15.85	33.28	20	16.97	33.32	24.25	368	0.08
38	16.07	33.42	30	15.85	33.28	24.48	346	0.12
47	15.04	33.38	50	14.52	33.36	24.83	313	0.18
56	13.69	33.33	75	12.10	33.34	25.30	268	0.26
65	12.90	33.30	100	10.56	33.67	25.84	217	0.32
74	12.20	33.33	150	11.30	34.41	26.28	175	0.42
82	11.37	33.39	200	10.80	34.51	26.45	159	0.50
90	10.89	33.52	250	10.27	34.53	26.56	148	0.58
111	10.40	33.80	300	9.70	34.53	26.66	139	0.66
135	11.40	34.33	400	8.46	34.49	26.82	124	0.79
177	11.04	34.49						
228	10.52	34.52						
317	9.51	34.53						
421	8.16	34.48						

S10

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

130.30

HORIZON; July 9, 1954; 2001 GCT; 26°30'N, 113°29'W; sounding, 43 fm; wind, 280°, force 4; weather, fog; sea, smooth; wire angle, 16°.

0	18.61	33.58	0	18.61	33.58	24.06	386	0.00
10	16.46	33.68	10	16.46	33.68	24.65	330	0.04
15	15.62	33.78	20	13.74	33.73	25.28	270	0.07
20	13.74	33.73	30	12.56	33.89	25.64	236	0.09
25	13.20	33.82	50	11.54	33.97	25.90	211	0.14
30	12.56	33.89						
35	12.00	33.90						
40	11.84	33.94						
50	11.54	33.97						
60	11.52	33.96						

130.40

HORIZON; July 10, 1954; 0058, 0138 GCT; 26°08'N, 114°07'W; sounding, 1200 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 15°, 23°.

0	20.6	-	0	20.6	(33.44)	(23.44)	(446)	(0.00)
10	20.74	33.49	10	20.74	33.49	23.44	445	0.04
24	19.35	33.45	20	19.87	33.45	23.64	426	0.09
48	17.25	33.51	30	18.65	33.45	23.95	397	0.13
58	17.18	33.67	50	17.24	33.54	24.36	358	0.21
67	16.36	33.62	75	15.43	33.55	24.78	318	0.29
76	15.34	33.54	100	12.24	33.30	25.25	273	0.36
95	12.42	33.28	150	11.38	34.00	25.95	206	0.49
118	11.83	33.60	200	10.58	34.29	26.32	171	0.58
146	11.41	33.96	250	10.10	34.37	26.46	158	0.67
193	10.64	34.27	300	9.44	34.41	26.61	144	0.75
257	10.01	34.38	400	8.20	34.41	26.80	126	0.89
357	8.73	34.42	500	7.01	34.36	26.93	113	1.01
482	7.19	34.36	600	6.21	34.37	27.05	102	1.13
668	5.80	34.38	700	5.60	34.39	27.14	93	1.23
			800	5.11	34.42	27.22	86	1.33
873	4.77	34.44	1000	4.31	34.46	27.35	74	1.51
1175	3.76	34.48						

130.60

HORIZON; July 10, 1954; 1115, 1143, 1214 GCT; 25°29'N, 115°24'W; sounding, 2100 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 09°, 10°, 09°.

0	20.1	-	0	20.1	(33.44)	(23.57)	(433)	(0.00)
10	18.94	33.41	10	18.94	33.41	23.84	407	0.04
25	15.81	33.40	20	17.17	33.40	24.27	366	0.08
56	11.11	33.52	30	14.55	33.41	24.86	310	0.12
66	10.92	33.71	50	11.51	33.48	25.52	247	0.17
76	10.98	33.82	75	10.98	33.82	25.88	213	0.23
91	11.04	33.99	100	10.93	34.08	26.09	193	0.28
111	10.82	34.16	150	10.61	34.36	26.37	166	0.37
138	10.68	34.30	200	9.90	34.35	26.48	156	0.45
			250	9.31	34.38	26.60	145	0.53
165	10.51	34.40	300	8.91	34.48	26.75	130	0.60
218	9.58	34.34	400	7.80	34.45	26.89	117	0.73
295	8.98	34.48	500	6.67	34.42	27.03	104	0.85
402	7.75	34.45	600	5.85	34.43	27.14	93	0.96
543	6.24	34.42	700	5.31	34.46	27.23	85	1.05
737	5.18	34.47	800	4.91	34.48	27.30	78	1.14
			1000	4.21	34.50	27.39	70	1.31
973	4.30	34.50						
1284	3.46	34.57						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

133.30

HORIZON; July 9, 1954, 1238 GCT; 25°53.5'N, 113°09'W; sounding, 120 fm; wind, 240°, force 2; weather, fog; sea, smooth; wire angle, 00°.

0	19.66	33.73	0	19.66	33.73	23.90	402	0.00
10	15.59	33.60	10	15.59	33.60	24.78	318	0.04
15	13.96	33.61	20	13.61	33.56	25.18	280	0.07
20	13.61	33.56	30	12.64	33.51	25.33	265	0.09
25	13.16	33.49	50	11.68	33.69	25.65	235	0.14
31	12.55	33.51	75	11.92	34.06	25.89	212	0.20
36	12.03	33.48	100	11.93	34.44	26.19	184	0.25
46	11.66	33.60	150	11.49	34.60	26.39	164	0.34
56	11.78	33.81						
67	11.88	33.93						
82	11.95	34.24						
102	11.92	34.45						
123	11.70	34.52						
159	11.43	34.64						

137.23

HORIZON; July 8, 1954; 2243 GCT; 25°34'N, 112°18.5'W; sounding, 40 fm; wind, 280°, force 3; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	22.82	34.16	0	22.82	34.16	23.37	452	0.00
10	17.02	34.00	10	17.02	34.00	24.76	320	0.04
15	14.02	33.96	20	13.08	34.00	25.62	238	0.07
20	13.08	34.00	30	12.72	34.03	25.72	228	0.09
25	12.92	33.99	50	12.50	34.33	25.99	202	0.13
30	12.72	34.03						
35	12.62	34.16						
40	12.65	34.25						
51	12.50	34.34						
61	12.52	34.42						

$152^{6.19^5}$

PAOLINA-T; July 23, 1954; 1716, 1748 GCT; 22°53'N, 110°22'W; sounding, 320 fm; wind, 310°, force 3; weather, partly cloudy; sea. moderate; wire angle, 23°, 32°.

0	23.68	34.65	0	23.68	34.65	23.49	441	0.00
9	23.54	34.69	10	23.53	34.69	23.57	434	0.04
23	22.83	34.70	20	23.01	34.70	23.73	418	0.09
38	21.04	34.72	30	22.30	34.71	23.93	398	0.13
52	18.05	34.74	50	18.47	34.74	24.98	299	0.20
65	15.61	34.78	75	15.21	34.85	25.83	218	0.26
78	15.10	34.88	100	14.17	34.96	26.04	188	0.32
92	14.43	34.96	150	13.29	34.95	26.32	172	0.41
114	13.88	34.96						
140	13.51	34.96						
175	12.70	34.88						

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
60.55-C	VII-11	0350	37°46.5'	123°17.0'	250	280°	4	fog	missing	11.46	33.66
60.70-C	11	1220	37°16.0'	124°22.0'	2150	240°	4	partly cloudy	moderate	15.16	33.07
60.90-C	11	2158	36°35.5'	125°47.0'	2450	310°	4	cloudy	moderate	16.15	32.86
63.55-C	10	2036	37°14.0'	122°50.0'	115	320°	4	cloudy	moderate	15.39	33.08
67.55-C	10	0900	36°38.5'	122°25.5'	1150	320°	3	cloudy	slight	12.41	33.19
70.55-C	14	0830	36°02.0'	122°01.5'	750	280°	4	overcast	slight	13.18	33.37
70.70-C	13	0016	35°33.0'	123°06.0'	2050	330°	5	overcast	moderate	16.59	-
73.50-C	13	1630	35°37.0'	121°16.5'	52	010°	2	cloudy	slight	12.20	33.82
77.50-C	14	1140	35°04.0'	120°52.0'	75	320°	4	cloudy	moderate	14.12	33.65
77.65-C	14	0240	34°34.0'	121°55.0'	2000	340°	5	overcast	moderate	15.34	33.39
80.51-C	14	1530	34°27.5'	120°30.5'	25	290°	2	cloudy	moderate	15.15	33.54
80.60-C	14	2045	34°09.0'	121°08.5'	1240	030°	5	cloudy	rough	14.13	33.57
80.80-C	15	0700	33°29.0'	122°32.0'	2000	050°	6	cloudy	rough	16.76	33.12
80.90-C	15	1210	33°09.0'	123°13.0'	2000	340°	6	cloudy	rough	16.5 a)	33.20
83.40-C	16	2030	34°15.0'	119°23.0'	12	calm		clear	smooth	16.09	33.44
83.48-C	16	1125	33°58.5'	119°55.0'	46	360°	3	clear	slight	16.24	33.47
83.55-C	16	0530	33°40.0'	120°18.5'	370	050°	6	partly cloudy	rough	15.18	33.53

a) Bucket temperature.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
85.40-C	VII-17	0040	33°57.0'	119°10.5'	430	250°	2	partly cloudy	slight	15.48	33.40
85.50-C	17	0610	33°37.0'	119°52.0'	160	200°	1	clear	moderate	16.74	33.51
85.60-C	17	1220	33°15.5'	120°32.0'	650	330°	4	fog	slight	14.19	33.56
87.35-C	18	0505	33°50.0'	118°37.5'	300	260°	1	partly cloudy	smooth	19.34	33.44
87.45-C	17	2330	33°30.0'	119°19.0'	900	260°	2	partly cloudy	moderate	16.18	33.58
87.55-C	17	1820	33°10.0'	120°00.5'	605	150°	2	overcast	slight	15.38	33.54
90.30-C	18	1200	33°24.0'	117°55.5'	300	calm		cloudy	calm	20.18	33.48
90.45-C	19	2040	32°54.5'	118°56.5'	900	280°	2	partly cloudy	moderate	17.38	33.44
90.60-C	20	0425	32°25.0'	119°57.5'	500	300°	5	clear	moderate	16.16	-
93.27-C	21	0830	32°56.0'	117°19.0'	137	150°	3	cloudy	smooth	19.95	33.52
93.35-C	21	0320	32°40.0'	117°52.0'	340	250°	1	cloudy	slight	19.74	33.55
93.40-C	21	0100	32°30.0'	118°12.5'	1000	290°	4	cloudy	moderate	19.80	33.55
93.45-C	20	2230	32°20.0'	118°33.0'	850	310°	3	cloudy	moderate	17.41	33.53
97.30-C	21	1310	32°14.5'	117°09.5'	35	220°	3	cloudy	slight	20.33	33.60
97.32-C	21	1415	32°10.5'	117°17.0'	800	220°	3	cloudy	slight	19.62	33.51
97.45-C	21	2110	31°47.0'	118°11.0'	900	270°	3	cloudy	moderate	19.86	33.54
97.50-C	21	2340	31°37.0'	118°31.5'	1300	300°	4	cloudy	moderate	17.59	33.46
100.30-H	18	1453	31°41.5'	116°47.0'	243	310°	5	cloudy	moderate	18.47	33.42
100.35-H	18	1220	31°35.0'	117°09.5'	395	310°	3	cloudy	moderate	20.17	33.46

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
100.40-H	VII-18	0951	31°23.5'	117°29.0'	900	290°	3	cloudy	moderate	19.68	33.51
100.45-H	18	0738	31°13.5'	117°49.0'	1070	290°	3	cloudy	moderate	19.70	33.56
100.60-H	17	2346	30°42.0'	118°49.5'	1500	290°	4	partly cloudy	rough	18.10	33.27
100.80-H	17	1507	30°02.0'	119°54.0'	2250	310°	3	cloudy	rough	17.09	33.28
103.35-H	16	2042	30°56.0'	116°45.5'	1025	220°	2	cloudy	rough	18.78	33.49
107.32-H	16	1410	30°27.5'	116°11.0'	450	calm		cloudy	moderate	17.47	33.35
107.40-H	16	0923	30°10.5'	116°43.5'	1600	290°	3	cloudy	rough	18.72	33.44
110.35-H	15	1210	29°46.5'	116°00.0'	680	310°	4	fog	moderate	18.80	33.39
110.45-H	15	1633	29°27.5'	116°34.0'	1650	310°	4	cloudy	rough	19.59	33.57
110.50-H	15	1831	29°18.0'	116°52.5'	1570	310°	4	cloudy	rough	18.77	33.43
113.30-H	15	0433	29°23.0'	115°18.5'	35	310°	6	partly cloudy	rough	14.46	33.33
113.40-H	14	2288	29°02.0'	115°58.0'	700	290°	5	partly cloudy	rough	19.45	33.50
117.26-H	14	1039	28°55.5'	114°41.5'	45	310°	5	overcast	slight	18.69	33.42
117.35-H	14	1445	28°37.0'	115°18.0'	120	310°	3	sky obscured	rough	-	33.40
120.30-H	14	0402	28°14.0'	114°33.5'	50	320°	4	partly cloudy	moderate	18.12	33.40
120.45-H	13	1321	27°43.0'	115°33.0'	755	310°	4	cloudy	slight	15.54	33.47
120.60-H	13	0538	27°15.0'	116°25.0'	2050	320°	4	cloudy	moderate	20.4 a)	33.65

a) Bucket temperature.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
120.80-H	VII-12	2006	26°40.0'	117°49.5'	2100	330°	3	cloudy	rough	19.86	33.65
123.37-H	11	0749	27°24.0'	114°39.5'	35	300°	3	partly cloudy	moderate	17.17	33.40
123.45-H	11	1231	27°08.0'	115°11.0'	2300	300°	4	partly cloudy	moderate	20.26	33.69
123.50-H	11	2310	26°58.0'	115°30.5'	1900	320°	4	partly cloudy	moderate	20.88	33.66
127.40-H	11	0026	26°46.0'	114°32.5'	1850	320°	3	partly cloudy	rough	19.84	33.51
127.45-H	10	2206	26°34.0'	114°48.5'	1900	330°	4	partly cloudy	rough	19.06	33.45
130.35-H	9	2229	26°16.5'	113°53.0'	670	280°	3	clear	moderate	19.98	33.45
130.45-H	10	0414	25°59.0'	114°27.0'	2000	270°	4	clear	moderate	19.76	33.48
130.50-H	10	0636	25°49.0'	114°46.0'	1950	270°	4	clear	moderate	19.28	33.51
133.25-H	9	1525	26°04.5'	112°48.0'	44	220°	2	fog	slight	20.09	33.94
133.35-H	9	0953	25°43.5'	113°28.0'	545	270°	3	fog	slight	18.67	33.64
133.40-H	9	0731	25°35.5'	113°44.0'	1350	270°	2	missing	slight	18.46	33.40
137.30-H	9	0158	25°20.0'	112°45.5'	110	280°	3	partly cloudy	slight	19.56	33.75

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

60.60

SPENCER F. BAIRD; August 31, 1954; 2351 GCT; 37°36'N, 123°38.5'W; sounding, 1760 fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 22°.

0	15.4	33.35	0	15.4	33.35	24.62	333	0.00
10	15.48	33.33	10	15.48	33.33	24.60	335	0.03
29	11.27	33.30	20	15.50	33.31	24.58	337	0.07
52	9.77	33.35	30	11.11	33.30	25.45	254	0.10
67	9.58	33.38	50	9.81	33.35	25.72	228	0.14
76	9.45	33.46	75	9.47	33.45	25.85	216	0.20
90	9.39	33.59	100	9.19	33.67	26.07	195	0.25
112	8.95	33.75	150	8.65	33.97	26.39	164	0.34
153	8.64	33.98	200	8.06	34.10	26.58	146	0.42
208	7.98	34.11	250	7.77	34.14	26.65	140	0.50
297	7.60	34.18	300	7.57	34.18	26.71	134	0.57
399	6.91	34.25	400	6.90	34.25	26.86	120	0.70
540	5.60	34.22	500	5.94	34.22	26.97	110	0.82
731	4.70	34.36	600	5.24	34.26	27.08	99	0.93
963	3.81	34.46	700	4.81	34.34	27.20	88	1.03
1282	3.14	34.51	800	4.40	34.40	27.29	79	1.12
			1000	3.70	34.47	27.42	67	1.29

60.80

SPENCER F. BAIRD; September 1, 1954; 0918, 0948 GCT; 36°59'N, 125°09.5'W; sounding, 2400 fm; wind, 330°, force 5; weather, clear; sea, rough; wire angle, 28°, 36°.

0	16.9	32.92	0	16.9	32.92	23.96	396	0.00
9	17.03	32.90	10	17.04	32.90	23.92	400	0.04
27	17.04	32.99	20	17.04	32.96	23.96	396	0.08
49	14.32	32.84	30	17.04	32.98	23.98	394	0.12
61	12.61	32.85	50	14.12	32.84	24.52	342	0.19
69	11.36	32.84	75	10.71	32.88	25.20	278	0.27
82	10.28	32.96	100	9.77	33.29	25.68	232	0.34
101	9.74	33.30	150	8.49	33.69	26.19	184	0.44
138	8.67	33.58	200	7.85	33.94	26.49	155	0.53
			250	7.06	33.99	26.64	141	0.60
185	8.06	33.91	300	6.56	34.01	26.72	133	0.67
255	6.98	33.99	400	5.78	34.09	26.88	118	0.80
344	6.18	34.04	500	5.19	34.18	27.03	104	0.92
447	5.48	34.13	600	4.74	34.26	27.14	93	1.02
635	4.62	34.29	700	4.42	34.34	27.24	84	1.12
844	4.06	34.43	800	4.17	34.41	27.32	76	1.21
1147	3.44	34.52	1000	3.71	34.49	27.43	66	1.36

60.100

SPENCER F. BAIRD; September 1, 1954; 1806, 1855 GCT; 36°25.5'N, 126°28'W; sounding, 2550 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 17°, 12°.

0	16.4	32.67	0	16.4	32.67	23.89	403	0.00
10	14.90	32.72	10	14.90	32.72	24.26	367	0.04
30	12.15	32.87	20	12.86	32.81	24.75	320	0.07
55	11.09	33.12	30	12.15	32.87	24.93	303	0.10
69	10.38	33.17	50	10.87	33.08	25.33	265	0.16
79	9.96	33.27	75	10.13	33.22	25.56	243	0.22
94	9.09	33.38	100	8.95	33.44	25.93	208	0.28
119	8.62	33.65	150	8.16	33.86	26.38	166	0.38
162	7.99	33.91	200	7.52	33.97	26.56	148	0.46
230	7.23	34.00	250	7.04	34.02	26.66	139	0.53
316	6.48	34.07	300	6.61	34.06	26.75	130	0.60
425	5.62	34.12	400	5.80	34.11	26.90	116	0.73
574	4.80	34.24	500	5.17	34.17	27.02	105	0.84
778	4.09	34.38	600	4.70	34.25	27.14	93	0.95
			700	4.34	34.31	27.22	86	1.04
585a)	4.76	34.22	800	4.02	34.37	27.31	77	1.13
793	4.05	34.33	1000	3.49	34.45	27.42	67	1.29
1045	3.38	34.46						
1374	2.80	34.53						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

63.52

SPENCER F. BAIRD; August 28, 1954; 0007 GCT; 37°19.5'N, 122°33'W; sounding, 39 fm; wind, 150°, force 5; weather, cloudy; sea, rough; wire angle, 07°.

0	14.4	33.51	0	14.4	33.51	24.97	300	0.00
5	14.36	33.48	10	14.34	33.49	24.97	300	0.03
10	14.34	33.49	20	12.39	33.60	25.45	254	0.06
15	13.34	33.52	30	11.31	33.65	25.69	231	0.08
20	12.39	33.60						
30	11.31	33.65						
40	10.68	33.68						

67.50

SPENCER F. BAIRD; August 27, 1954; 0853 GCT; 36°46'N, 122°04'W; sounding, 400 fm; wind, 180°, force 4; weather, drizzle; sea, missing; wire angle, 08°.

0	14.6	33.53	0	14.6	33.53	24.95	301	0.00
10	14.02	33.60	10	14.02	33.60	25.12	285	0.03
30	11.25	33.65	20	12.47	33.63	25.46	253	0.06
40	10.80	33.62	30	11.25	33.65	25.70	230	0.08
50	10.05	33.70	50	10.05	33.70	25.95	206	0.12
60	9.97	33.70	75	9.74	33.72	26.02	200	0.18
70	9.80	33.69	100	9.60	33.75	26.06	196	0.22
80	9.70	33.74	150	9.28	33.81	26.16	186	0.32
89	9.65	33.71	200	8.76	34.00	26.39	164	0.41
98	9.62	33.75	250	8.37	34.10	26.53	151	0.49
123	9.38	33.78	300	7.90	34.13	26.63	142	0.57
152	9.26	33.81	400	7.14	34.15	26.75	130	0.71
201	8.74	34.01	500	6.45	34.16	26.85	121	0.84
259	8.29	34.11	600	5.51	34.25	27.04	103	0.96
364	7.38	34.15						
482	6.60	34.16						
605	5.46	34.25						

67.65

SPENCER F. BAIRD, August 27, 1954; 1549, 1620 GCT; 36°20'N, 123°12.5'W; sounding, 1900 fm; wind, 150°, force 4; weather, cloudy; sea, moderate; wire angle, 08°, 12°.

0	15.1	33.39	0	15.1	33.39	24.73	322	0.00
5	15.12	33.34	10	14.73	33.37	24.79	317	0.03
16	14.33	33.39	20	13.89	33.41	25.00	297	0.06
35	12.46	33.49	30	12.89	33.47	25.25	273	0.09
50	11.28	33.51	50	11.28	33.51	25.59	240	0.14
70	9.31	33.64	75	9.22	33.66	26.06	196	0.20
81	9.16	33.69	100	8.90	33.82	26.23	180	0.24
91	9.07	33.76	150	8.48	34.02	26.45	159	0.33
105	8.86	33.84	200	7.90	34.04	26.56	148	0.41
			250	7.19	34.04	26.66	139	0.48
82a)	9.17	33.70	300	6.40	34.06	26.78	128	0.55
95	8.98	33.80	400	5.76	34.12	26.91	115	0.68
106	8.84	33.84	500	5.30	34.19	27.02	105	0.79
130	8.68	33.93	600	4.93	34.25	27.11	96	0.90
158	8.36	34.04						
212	7.76	34.04						
275	6.71	34.05						
385	5.84	34.11						
515	5.24	34.20						
648	4.76	34.27						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

70.52 SPENCER F. BAIRD; September 2, 1954; 2230 GCT; 36°07.5'N, 121°51'W; sounding, 480 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 28°.

0	11.1	33.60	0	11.1	33.60	25.69	231	0.00
10	11.04	33.67	10	11.04	33.67	25.75	225	0.02
28	10.84	33.64	20	10.96	33.65	25.75	225	0.04
36	10.46	33.65	30	10.78	33.64	25.78	222	0.07
45	9.92	33.64	50	9.80	33.64	25.94	207	0.11
53	9.73	33.64	75	9.38	33.77	26.12	190	0.16
61	9.53	33.71	100	9.26	33.79	26.15	187	0.21
70	9.43	33.70	150	8.90	33.97	26.35	168	0.30
74	9.38	33.77	200	8.55	34.05	26.47	157	0.38
101	9.26	33.79	250	8.21	34.15	26.60	145	0.46
128	9.10	33.89	300	7.81	34.22	26.71	134	0.53
166	8.75	34.01	400	6.96	34.20	26.82	124	0.67
215	8.46	34.07	500	6.29	34.27	26.96	110	0.79
302	7.80	34.22						
407	6.90	34.20						
523	6.15	34.29						

70.60 SPENCER F. BAIRD; September 2, 1954; 1812 GCT; 35°53'N, 122°22'W; sounding, 1780 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 25°.

0	15.3	33.18	0	15.3	33.18	24.53	341	0.00
10	15.39	33.19	10	15.39	33.19	24.51	343	0.03
29	13.96	33.18	20	15.40	33.18	24.50	344	0.07
52	10.83	33.20	30	13.65	33.18	24.87	309	0.10
65	10.01	33.39	50	10.99	33.19	25.39	260	0.16
74	9.31	33.48	75	9.26	33.48	25.91	210	0.22
88	8.78	33.51	100	8.60	33.61	26.11	191	0.27
109	8.48	33.68	150	8.06	33.89	26.41	163	0.36
148	8.06	33.88	200	7.86	34.04	26.56	148	0.44
206	7.82	34.04	250	7.25	34.04	26.65	140	0.51
282	6.72	34.04	300	6.61	34.05	26.75	130	0.58
378	6.43	34.15	400	6.37	34.18	26.88	118	0.71
509	5.92	34.29	500	5.97	34.28	27.01	106	0.83
687	4.90	34.36	600	5.34	34.33	27.13	94	0.93
904	4.10	34.38	700	4.84	34.36	27.21	87	1.03
1216	3.26	34.50	800	4.44	34.37	27.26	82	1.12
			1000	3.81	34.41	27.36	73	1.30

70.80 SPENCER F. BAIRD; September 2, 1954; 0849 GCT; 35°14'N, 123°44.5'W; sounding, 2310 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 25°.

0	17.3	33.05	0	17.3	33.05	23.97	395	0.00
10	17.40	33.04	10	17.40	33.04	23.94	398	0.04
24	17.39	33.08	20	17.40	33.07	23.96	396	0.08
50	15.53	33.02	30	17.37	33.07	23.97	395	0.12
59	14.55	33.08	50	15.53	33.02	24.35	359	0.20
67	13.42	33.02	75	13.07	33.10	24.93	303	0.28
79	12.95	33.12	100	12.04	33.07	25.10	287	0.35
96	12.32	33.07	150	9.12	33.38	25.85	216	0.48
123	10.13	33.09	200	8.23	33.79	26.31	172	0.58
178	8.54	33.65	250	7.60	33.95	26.53	151	0.66
245	7.66	33.94	300	6.73	33.98	26.67	138	0.73
335	6.38	34.00	400	5.96	34.06	26.84	122	0.87
454	5.64	34.11	500	5.39	34.14	26.97	110	0.99
618	4.78	34.22	600	4.87	34.21	27.09	98	1.10
830	4.09	34.40	700	4.50	34.30	27.20	88	1.20
1122	3.39	34.46	800	4.19	34.38	27.30	78	1.29
			1000	3.66	34.44	27.40	69	1.45

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

SPENCER F. BAIRD; September 3, 1954; 0430 GCT; 35°16.5'N, 121°58.5'W; sounding, 1450 fm; wind, 330°, force 6; weather, partly cloudy; sea, very rough; wire angle, 38°. 73.60

0	14.8	33.42	0	14.8	33.42	24.82	314	0.00
9	14.77	33.44	10	14.76	33.44	24.84	312	0.03
24	14.75	33.45	20	14.75	33.45	24.85	311	0.06
37	13.91	33.42	30	14.75	33.44	24.84	312	0.09
49	12.04	33.43	50	11.99	33.43	25.39	260	0.15
56	11.56	33.41	75	9.94	33.58	25.87	214	0.21
63	10.61	33.46	100	9.16	33.80	26.17	185	0.26
75	9.94	33.58	150	8.33	33.94	26.41	163	0.35
84	9.52	33.68	200	7.93	34.04	26.55	149	0.43
109	8.99	33.84	250	7.50	34.12	26.68	137	0.50
133	8.50	33.91	300	7.16	34.17	26.76	129	0.57
174	8.17	33.98	400	6.60	34.29	26.94	112	0.70
221	7.74	34.08	500	5.97	34.29	27.02	105	0.81
305	7.12	34.18						
413	6.52	34.30						
537	5.72	34.29						

SPENCER F. BAIRD; September 3, 1954; 1615, 1635, 1650 GCT; 34°53.5'N, 121°20.5'W; sounding, 266 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°, 12°, 20°. 77.55

0	15.2	33.48	0	15.2	33.48	24.78	318	0.00
10	15.18	33.46	10	15.18	33.46	24.77	319	0.03
15	15.20	33.48	20	15.18	33.48	24.78	318	0.06
20	15.18	33.48	30	13.59	33.46	25.10	287	0.09
25	15.07	33.48	50	9.86	33.62	25.92	209	0.14
30	13.59	33.46	75	9.30	33.75	26.11	191	0.19
40	11.84	33.60	100	9.09	33.87	26.24	179	0.24
50	9.86	33.62	150	8.71	34.03	26.43	161	0.33
65	9.35	33.72	200	8.51	34.16	26.56	148	0.41
			250	8.25	34.21	26.64	141	0.48
77	9.28	33.76	300	7.77	34.22	26.72	133	0.55
119	8.88	33.94	400	(7.04)	(34.27)	(26.86)	(120)	(0.68)
153	8.70	34.04						
196	8.53	34.15						
245	8.30	34.21						
318	7.62	34.22						
398	7.05	34.27						

SPENCER F. BAIRD; September 5, 1954; 0759 GCT; 34°16.5'N, 120°50.5'W; sounding, 450 fm; wind, 330°, force 6; weather, cloudy; sea, very rough; wire angle, 15°. 80.55

0	14.4	33.44	0	14.4	33.44	24.92	304	0.00
10	14.29	33.40	10	14.29	33.40	24.91	305	0.03
30	11.32	33.45	20	13.00	33.42	25.19	279	0.06
44	9.80	33.60	30	11.32	33.45	25.53	246	0.09
54	9.52	33.70	50	9.61	33.66	25.99	202	0.13
63	9.30	33.77	75	9.08	33.85	26.23	180	0.18
73	9.10	33.84	100	8.96	33.91	26.29	174	0.22
82	9.03	33.87	150	8.86	33.97	26.35	168	0.31
96	8.97	33.90	200	8.52	34.11	26.52	152	0.39
124	8.90	33.94	250	8.37	34.20	26.61	144	0.47
157	8.83	33.98	300	7.69	34.22	26.73	132	0.54
207	8.58	34.13	400	6.62	34.22	26.88	118	0.67
265	8.25	34.21	500	6.19	34.21	26.93	113	0.79
371	6.77	34.22	600	5.58	34.36	27.12	95	0.90
486	6.27	34.21						
624	5.40	34.41						

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5408

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

80.70

SPENCER F. BAIRD; September 5, 1954; 0024 GCT; 33°48'N, 121°51'W; sounding, 2050 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 13°.

0	16.1	33.43	0	16.1	33.43	24.54	340	0.00
10	16.18	33.45	10	16.18	33.45	24.54	340	0.03
30	16.19	33.42	20	16.19	33.44	24.53	341	0.07
54	12.81	33.13	30	16.19	33.42	24.51	343	0.10
69	11.14	33.17	50	13.93	33.25	24.87	309	0.17
79	10.38	33.23	75	10.63	33.20	25.46	253	0.24
93	9.56	33.39	100	9.30	33.48	25.90	211	0.30
117	8.82	33.66	150	8.24	33.88	26.38	166	0.39
160	8.12	33.93	200	7.69	34.01	26.56	148	0.47
224	7.44	34.04	250	7.18	34.06	26.68	137	0.55
308	6.62	34.09	300	6.69	34.08	26.76	129	0.61
416	5.81	34.19	400	5.90	34.17	26.93	113	0.74
562	5.09	34.32	500	5.35	34.27	27.08	99	0.85
764	4.47	34.39	600	4.96	34.34	27.18	90	0.95
1007	3.83	34.48	700	4.65	34.37	27.24	84	1.05
1335	3.04	34.51	800	4.39	34.40	27.29	79	1.14
			1000	3.85	34.48	27.41	68	1.30

80.90

SPENCER F. BAIRD; September 4, 1954; 1449 GCT; 33°05'N, 123°15'W; sounding, 2400 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 22°.

0	17.4	33.14	0	17.4	33.14	24.02	391	0.00
10	17.49	33.14	10	17.49	33.14	23.99	393	0.04
29	17.51	33.14	20	17.51	33.14	23.99	393	0.08
52	15.57	33.09	30	17.51	33.14	23.99	393	0.12
66	14.31	33.05	50	15.76	33.09	24.35	359	0.19
75	13.81	33.06	75	13.81	33.06	24.75	320	0.28
89	12.63	33.02	100	11.67	33.03	25.14	283	0.35
111	10.85	33.07	150	8.88	33.46	25.95	206	0.48
152	8.84	33.48	200	8.50	33.95	26.40	164	0.57
214	8.41	34.01	250	8.00	34.00	26.51	153	0.65
294	7.40	34.00	300	7.31	34.00	26.61	144	0.73
398	6.31	34.08	400	6.30	34.08	26.81	125	0.87
539	5.56	34.22	500	5.75	34.19	26.97	110	0.99
735	4.66	34.35	600	5.25	34.27	27.09	98	1.10
971	3.90	34.45	700	4.80	34.33	27.19	89	1.20
1295	3.14	34.52	800	4.43	34.38	27.27	81	1.30
			1000	3.83	34.46	27.40	69	1.46

82.47

SPENCER F. BAIRD; September 5, 1954; 1421 GCT; 34°15'N, 119°59'W; sounding, 328 fm; wind, 280°, force 2; weather, clear; sea, moderate; wire angle, 10°.

0	17.1	33.51	0	17.1	33.51	24.37	357	0.00
10	17.19	33.49	10	17.19	33.49	24.33	360	0.04
30	11.85	33.37	20	14.08	33.42	24.97	300	0.07
40	11.44	33.40	30	11.85	33.37	25.37	262	0.10
50	10.92	33.43	50	10.92	33.43	25.59	240	0.15
60	10.40	33.50	75	9.65	33.66	25.99	202	0.20
70	9.77	33.62	100	9.03	33.90	26.27	176	0.25
79	9.58	33.68	150	8.69	34.12	26.50	154	0.34
89	9.25	33.81	200	8.60	34.14	26.53	151	0.41
98	9.06	33.89	250	8.18	34.20	26.64	141	0.49
117	8.90	33.96	300	7.73	34.23	26.73	132	0.56
142	8.70	34.11	400	7.04	34.24	26.84	122	0.69
200	8.60	34.14	500	6.49	34.27	26.93	113	0.82
278	7.92	34.22						
381	7.16	34.24						
500	6.49	34.27						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

SPENCER F. BAIRD; September 5, 1954; 1723 GCT; 34°08'N, 119°35.5'W; sounding, 140 fm; wind, 280°, force 2; weather, clear; sea, rough; wire angle, 02°. 83.43

0	18.7	33.52	0	18.7	33.52	23.99	393	0.00
10	18.41	33.51	10	18.41	33.51	24.05	387	0.04
15	18.08	33.57	20	17.67	33.44	24.18	375	0.08
20	17.67	33.44	30	16.51	33.45	24.46	348	0.11
25	17.19	33.44	50	11.98	33.39	25.36	262	0.18
30	16.51	33.45	75	9.99	33.56	25.85	216	0.24
35	15.05	33.41	100	9.22	33.76	26.13	189	0.29
45	12.48	33.40	150	8.72	34.00	26.40	164	0.38
55	11.70	33.39	200	8.56	34.08	26.49	155	0.46
65	11.29	33.40						
75	9.99	33.56						
95	9.30	33.72						
110	9.11	33.86						
140	8.80	33.98						
170	8.62	34.04						
205	8.56	34.08						

SPENCER F. BAIRD; September 6, 1954; 0015 GCT; 33°51.5'N, 120°08'W; sounding, 100 fm; wind, 290°, force 4; weather, clear; sea, moderate; wire angle, 06°. 83.51

0	18.4	33.50	0	18.4	33.50	24.05	387	0.00
10	18.40	33.53	10	18.40	33.53	24.07	385	0.04
15	17.70	33.50	20	16.91	33.48	24.39	355	0.08
20	16.91	33.48	30	13.81	33.42	25.03	294	0.11
25	16.46	33.45	50	10.27	33.48	25.74	226	0.16
30	13.81	33.42	75	9.70	33.57	25.91	210	0.22
35	11.71	33.35	100	9.33	33.79	26.14	188	0.27
45	10.32	33.47	150	9.06	33.84	26.22	181	0.36
55	10.27	33.48						
65	10.09	33.50						
80	9.56	33.61						
101	9.32	33.79						
121	9.14	33.79						
156	9.05	33.86						

SPENCER F. BAIRD; September 6, 1954; 0506, 0533 GCT; 33°34.5'N, 120°46.5'W; sounding, 930 fm; wind, 320°, force 6; weather, cloudy; sea, very rough; wire angle, 30°, 10°. 83.60

0	16.3	33.51	0	16.3	33.51	24.55	340	0.00
9	16.42	33.49	10	16.41	33.49	24.51	343	0.03
26	16.43	33.48	20	16.43	33.48	24.50	344	0.07
41	15.61	33.40	30	16.42	33.47	24.50	344	0.10
52	11.72	33.31	50	12.13	33.31	25.27	271	0.16
61	11.30	33.36	75	10.23	33.50	25.76	224	0.23
70	10.59	33.48	100	9.30	33.65	26.03	199	0.28
83	9.86	33.53	150	8.45	33.91	26.37	166	0.37
97	9.34	-	200	8.00	34.05	26.55	149	0.45
			250	7.53	34.11	26.66	139	0.53
109	9.20	33.70	300	6.95	34.17	26.79	127	0.60
142	8.56	33.87	400	6.29	34.24	26.94	112	0.72
177	8.20	34.01	500	5.91	34.31	27.04	103	0.83
236	7.70	34.09	600	5.56				
305	6.90	34.17	700	(5.20)				
429	6.16	34.26						
559	5.72	34.34						
698	5.21	34.35u						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

85.39

SPENCER F. BAIRD; September 6, 1954; 2025 GCT; 33°59'N, 119°04.5'W; sounding, 408 fm; wind, 260°, force 2; weather, clear; sea, calm; wire angle, 14°.

0	19.5	33.55	0	19.5	33.55	23.81	411	0.00
10	18.96	33.52	10	18.96	33.52	23.92	400	0.04
30	13.06	33.33	20	15.67	33.38	24.60	335	0.08
40	11.80	33.37	30	13.06	33.33	25.11	286	0.11
49	10.54	33.44	50	10.52	33.45	25.67	233	0.16
59	10.47	33.49	75	9.87	33.54	25.86	215	0.22
69	10.22	33.48	100	9.57	33.60	25.95	206	0.27
78	9.76	33.57	150	9.28	33.77	26.13	189	0.37
93	9.63	33.58	200	8.92	33.92	26.31	172	0.46
117	9.41	33.71	250	8.45	34.08	26.50	154	0.54
150	9.28	33.77	300	8.14	34.21	26.65	140	0.62
198	8.94	33.91	400	7.49	34.28	26.80	126	0.76
256	8.41	34.10	500	6.61	34.28	26.93	113	0.89
359	7.79	34.29	600	5.82	34.34	27.08	99	1.00
477	6.82	34.27						
600	5.82	34.34						

85.45

SPENCER F. BAIRD; September 6, 1954; 1634 GCT; 33°49'N, 119°32.5'W; sounding, 900 fm; wind, 100°, force 1; weather, cloudy; sea, slight; wire angle, 14°.

0	19.3	33.57	0	19.3	33.57	23.87	404	0.00
10	18.39	33.61	10	18.39	33.61	24.13	380	0.04
31	14.31	33.44	20	16.30	33.51	24.55	340	0.08
46	12.67	33.46	30	14.44	33.44	24.91	305	0.11
54	10.78	33.42	50	11.53	33.43	25.48	251	0.16
63	10.58	33.46	75	10.44	33.51	25.74	226	0.22
73	10.48	33.50	100	9.68	33.67	25.99	202	0.28
82	10.20	33.55	150	8.83	33.93	26.33	170	0.37
97	9.77	33.64	200	8.51	34.11	26.52	152	0.45
125	9.06	33.84	250	8.29	34.21	26.63	142	0.53
158	8.79	33.96	300	8.04	34.26	26.71	134	0.60
210	8.45	34.14	400	7.25	34.32	26.87	119	0.73
273	8.20	34.24	500	6.60	34.36	26.99	108	0.85
383	7.38	34.30	600	5.93	34.37	27.09	98	0.96
509	6.54	34.49u						
642	5.66	34.36						

85.55

SPENCER F. BAIRD; September 6, 1954; 1045 GCT; 33°27'N, 120°16'W; sounding, 675 fm; wind, 320°, force 6; weather, missing; sea, rough; wire angle, 14°.

0	15.6	33.48	0	15.6	33.48	24.69	326	0.00
10	15.70	33.48	10	15.70	33.48	24.67	328	0.03
30	13.57	33.40	20	15.70	33.48	24.67	328	0.07
45	10.31	33.47	30	13.57	33.40	25.06	291	0.10
59	9.92	33.55	50	10.12	33.50	25.78	222	0.15
69	9.60	33.63	75	9.54	33.69	26.03	199	0.20
78	9.52	33.72	100	9.01	33.83	26.22	181	0.25
93	9.10	33.80	150	8.59	34.06	26.47	157	0.33
108	8.92	33.88	200	8.29	34.15	26.58	146	0.41
141	8.64	34.04	250	8.00	34.21	26.67	138	0.48
174	8.44	34.11	300	7.68	34.22	26.73	132	0.55
230	8.12	34.20	400	7.03	34.25	26.85	121	0.69
297	7.70	34.22	500	6.28	34.31	26.99	108	0.81
411	6.95	34.26	600	5.68	34.34	27.09	98	0.92
545	6.00	34.33	700	(5.20)	(34.36)	(27.17)	(91)	(1.02)
683	5.26	34.36						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} m^3/g	dyn. m

87.40

SPENCER F. BAIRD; September 7, 1954; 0141 GCT; 33°39.5'N, 118°59.5'W; sounding, 325 fm; wind, 280°, force 4; weather, clear; sea, moderate; wire angle, 19°.

0	-	-	0	(19.67)	(33.55)	(23.76)	(415)	(0.00)
5	19.66	33.55	10	19.64	33.54	23.76	415	0.04
25	19.09	33.50	20	19.31	33.51	23.83	409	0.08
34	16.98	33.48	30	18.32	33.49	24.06	386	0.12
44	13.72	33.31	50	13.01	33.35	25.13	284	0.19
53	12.81	33.37	75	10.66	33.44	25.64	236	0.26
63	12.00	33.37	100	9.89	33.55	25.86	215	0.31
72	11.00	33.40	150	8.93	33.87	26.27	176	0.41
81	10.32	33.52	200	8.49	34.04	26.47	157	0.50
91	10.16	33.53	250	8.21	34.17	26.61	144	0.57
110	9.52	33.59	300	7.86	34.25	26.73	132	0.64
138	9.07	33.83	400	7.13	34.30	26.87	119	0.78
185	8.60	33.99	500	(6.55)	(34.27)	(26.93)	(113)	(0.90)
266	8.11	34.20						
366	7.36	34.31						
484	6.63	34.27						

87.50

SPENCER F. BAIRD; September 7, 1954; 0653 GCT; 33°20.5'N, 119°40'W; sounding, 40 fm; wind, 300°, force 6; weather, clear; sea, rough; wire angle, 00°.

0	15.3	33.54	0	15.3	33.54	24.80	316	0.00
5	15.38	33.55	10	15.27	33.53	24.80	316	0.03
10	15.27	33.53	20	13.72	33.52	25.12	285	0.06
15	15.47	33.49	30	11.25				
20	13.72	33.52						
25	12.58	33.58						
35	10.66	-						
45	9.87	-						

87.60

SPENCER F. BAIRD; September 7, 1954; 1225 GCT; 32°58.5'N, 120°28.5'W; sounding, 810 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 21°.

0	16.6	33.49	0	16.6	33.49	24.47	347	0.00
10	16.72	33.49	10	16.72	33.49	24.44	350	0.04
29	16.57	33.48	20	16.63	33.48	24.46	348	0.07
42	12.08	33.33	30	16.57	33.48	24.47	347	0.10
56	10.78	33.35	50	11.21	33.34	25.47	252	0.16
65	10.21	33.38	75	9.80	33.47	25.81	220	0.22
73	9.90	33.44	100	9.00	33.73	26.15	187	0.28
86	9.26	33.62	150	8.33	33.92	26.40	164	0.36
99	9.02	33.73	200	7.88	34.03	26.55	149	0.44
130	8.49	33.84	250	7.36	34.10	26.68	137	0.52
161	8.26	33.96	300	6.89	34.15	26.79	127	0.59
215	7.70	34.05	400	6.30	34.23	26.93	113	0.71
277	7.09	34.13	500	6.03	34.32	27.03	104	0.83
383	6.36	34.22	600	5.59	34.37	27.13	94	0.93
511	5.98	34.33						
642	5.40	34.38						

90.28

SPENCER F. BAIRD; September 8, 1954; 1730 GCT; 33°28.5'N, 117°45'W; sounding, 25 fm; wind, 150°, force 1; weather, cloudy; sea, slight; wire angle, 05°.

0	20.6	33.48	0	20.6	33.48	23.47	443	0.00
5	20.38	33.48	10	18.54	33.40	23.94	398	0.04
10	18.54	33.40	20	13.94	33.38	24.97	300	0.08
15	16.64	33.41	30	12.38	33.33	25.24	274	0.11
20	13.94	33.38						
25	12.98	33.35						
30	12.38	33.33						
35	12.12	33.30						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

90.37

SPENCER F. BAIRD; September 8, 1954; 1249 GCT; 33°10.5'N, 118°23'W; sounding, 650 fm; wind, 270°, force 1, weather, fog; sea, slight; wire angle, 07°.

0	18.9	33.40	0	18.9	33.40	23.85	407	0.00
10	18.87	33.43	10	18.87	33.43	23.88	404	0.04
30	16.19	33.28	20	18.13	33.36	24.01	391	0.08
45	12.92	33.17	30	16.19	33.28	24.40	354	0.12
55	12.29	33.28	50	12.63	33.21	25.10	287	0.18
65	10.88	33.27	75	10.52	33.36	25.60	240	0.25
75	10.52	33.36	100	9.68	33.54	25.89	212	0.30
85	9.94	33.45	150	9.00	33.89	26.27	176	0.40
99	9.69	33.53	200	8.59	34.10	26.50	154	0.49
128	9.50	33.80	250	8.49	34.15	26.55	149	0.56
162	8.74	33.94	300	8.14	34.17	26.62	143	0.64
215	8.56	34.13	400	7.23	34.22	26.79	127	0.78
278	8.36	34.16	500	6.63	34.28	26.92	114	0.91
391	7.30	34.22	600	6.02	34.34	27.05	102	1.02
519	6.53	34.29						
653	5.71	34.38						

90.55

SPENCER F. BAIRD; September 8, 1954; 0420 GCT; 32°28.5'N, 119°39'W; sounding, 700 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 15°.

0	17.1	33.47	0	17.1	33.47	24.34	360	0.00
10	17.20	33.48	10	17.20	33.48	24.32	361	0.04
30	17.18	33.49	20	17.22	33.49	24.32	361	0.07
44	16.06	33.45	30	17.18	33.49	24.33	360	0.11
58	12.01	33.31	50	14.21	33.36	24.90	306	0.18
67	10.48	33.49	75	10.40	33.45	25.70	230	0.24
76	10.38	33.45	100	9.33	33.61	26.00	202	0.30
90	9.97	33.52	150	8.86	33.91	26.31	172	0.39
104	9.20	33.65	200	8.31	34.04	26.49	155	0.48
138	8.94	33.89	250	7.84	34.16	26.66	139	0.55
171	8.64	33.96	300	7.46	34.21	26.75	130	0.62
227	8.04	34.10	400	6.83	34.24	26.86	120	0.75
293	7.50	34.21	500	6.44	34.27	26.94	112	0.87
408	6.79	34.24	600	5.90	34.35	27.07	100	0.99
544	6.23	34.29	700	(5.30)	(34.41)	(27.19)	(89)	(1.09)
682	5.38	34.41						

90.70

SPENCER F. BAIRD; September 7, 1954; 1827 GCT; 32°05'N, 120°42'W; sounding, 2150 fm; wind, 320°, force 6; weather, cloudy; sea, very rough; wire angle, 15°.

0	17.5	33.57	0	17.5	33.57	24.32	361	0.00
10	17.52	33.57	10	17.52	33.57	24.31	362	0.04
31	17.18	33.52	20	17.36	33.55	24.34	360	0.07
54	11.93	33.30	30	17.19	33.52	24.35	359	0.11
68	10.67	33.30	50	12.53	33.32	25.20	278	0.17
78	10.14	33.39	75	10.27	33.36	25.65	235	0.24
92	9.72	33.46	100	9.51	33.57	25.94	207	0.29
116	9.10	33.75	150	8.54	33.93	26.37	166	0.39
159	8.40	33.95	200	7.83	33.99	26.53	151	0.47
227	7.54	34.02	250	7.35	34.06	26.65	140	0.54
313	6.90	34.21	300	7.00	34.19	26.80	126	0.61
423	6.16	34.29	400	6.30	34.28	26.97	110	0.73
572	5.43	34.35	500	5.75	34.32	27.07	100	0.84
774	4.60	34.43	600	5.30	34.36	27.15	92	0.95
1018	3.90	34.46	700	4.89	34.40	27.23	85	1.04
1344	3.21	34.54	800	4.51	34.44	27.31	77	1.13
			1000	3.95	34.46	27.38	71	1.30

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

93.30

SPENCER F. BAIRD; September 8, 1954; 2317 GCT; 32°50'N, 117°30.5'W; sounding, 456 fm; wind, 230°, force 2; weather, partly cloudy; sea, slight; wire angle, 10°.

0	21.6	33.58	0	21.6	33.58	23.27	462	0.00
10	20.27	33.55	10	20.27	33.55	23.61	430	0.04
30	14.36	33.37	20	17.06	33.45	24.33	360	0.08
40	13.42	33.33	30	14.36	33.37	24.87	309	0.12
50	12.03	33.30	50	12.03	33.30	25.28	270	0.18
60	11.09	33.40	75	10.30	33.43	25.70	230	0.24
70	10.64	33.40	100	9.53	33.64	25.99	202	0.29
80	9.95	33.53	150	9.10	33.97	26.32	171	0.39
94	9.60	33.60	200	8.77	34.13	26.49	155	0.47
118	9.39	33.77	250	8.29	34.35	26.74	131	0.54
152	9.08	33.98	300	7.95	34.33	26.78	128	0.61
200	8.77	34.13	400	7.26	34.30	26.85	121	0.74
258	8.22	34.35	500	6.48	34.35	27.00	107	0.86
361	7.60	34.30	600	5.91	34.40	27.11	96	0.97
478	6.66	34.34						
602	5.91	34.40						

93.40

CREST; August 14, 1954; 0610 GCT; 32°30.5'N, 118°14'W; sounding, 860 fm; wind, 360°, force 2; weather, overcast; sea, rough; wire angle, 05°.

0	19.7	33.52	0	19.7	33.52	23.73	417	0.00
10	19.54	33.53	10	19.54	33.53	23.78	413	0.04
30	15.11	33.24	20	16.87	33.34	24.29	364	0.08
45	13.48	33.31	30	15.11	33.24	24.61	334	0.12
56	12.62	33.31	50	13.12	33.31	25.08	289	0.18
66	11.39	33.30	75	10.50	33.48	25.70	230	0.24
75	10.50	33.48	100	9.71	33.70	26.01	201	0.30
84	10.06	33.56	150	9.22	33.93	26.27	176	0.39
99	9.74	33.70	200	8.93	34.10	26.45	159	0.48
110	9.58	33.71	250	8.76	34.20	26.55	149	0.56
135	9.42	33.83	300	8.51	34.27	26.64	140	0.63
165	9.02	34.00	400	7.94	34.34	26.79	127	0.77
222	8.88	34.15	500	7.08	34.36	26.92	114	0.90
285	8.58	34.25	600	6.28	34.40	27.06	101	1.02
398	7.98	34.34						
526	6.87	34.37						
660	5.83	34.43						

93.50

CREST; August 13, 1954; 0053, 0109, 0222 GCT; 32°11'N, 118°55'W; sounding, 750 fm; wind, 310°, force 3; weather, overcast; sea, rough; wire angle, 13°, 13°, 12°.

0	-	33.51	0	18.0	33.51	24.15	377	0.00
10	17.97	33.54	10	17.97	33.54	24.18	375	0.04
30	17.33	33.44	20	17.71	33.48	24.20	373	0.08
45	14.14	33.40	30	17.33	33.44	24.26	367	0.11
55	12.64	33.37	50	13.28	33.38	25.10	287	0.18
			75	10.60	33.47	25.68	232	0.24
67	11.49	33.43	100	9.81	33.66	25.96	205	0.30
77	10.40	33.48	150	8.83	34.01	26.39	164	0.39
87	10.00	33.62	200	8.50	34.16	26.56	148	0.47
101	9.78	33.66	250	8.03	34.19	26.65	139	0.55
111	9.36	33.79	300	7.54	34.22	26.75	130	0.62
164	8.72	34.06	400	6.92	34.35	26.94	112	0.74
			500	6.21	34.38	27.06	101	0.86
213	8.40	34.18	600	5.68				
276	7.75	34.20						
387	7.02	34.34						
515	6.11	34.39						
650	5.48	34.22						

SIO

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5408

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m

93.50

SPENCER F. BAIRD; September 9, 1954; 0916 GCT; 32°09.5'N, 118°55.5'W; sounding, 840 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.

0	18.7	33.46	0	18.7	33.46	23.94	398	0.00
10	18.78	33.46	10	18.78	33.46	23.92	400	0.04
30	15.82	33.24	20	18.78	33.45	23.91	400	0.08
45	14.59	33.28	30	15.82	33.24	24.46	348	0.12
54	13.61	33.21	50	14.09	33.24	24.83	313	0.18
64	12.13	33.22	75	11.32	33.31	25.42	257	0.26
73	11.50	33.30	100	9.76	33.58	25.90	211	0.31
83	10.38	33.33	150	9.45	33.98	26.27	176	0.41
97	9.84	33.55	200	8.92	34.18	26.51	153	0.50
126	9.31	33.80	250	8.37	34.19	26.60	145	0.57
160	9.45	34.04	300	7.94	34.20	26.68	137	0.65
213	8.75	34.20	400	7.09	34.27	26.85	121	0.78
277	8.12	34.19	500	6.55	34.31	26.96	110	0.90
387	7.17	34.27	600	5.73	34.35	27.09	98	1.01
516	6.44	34.31						
649	5.32	34.38						

97.40

SPENCER F. BAIRD; September 9, 1954; 1919 GCT; 31°54.5'N, 117°46.5'W; sounding, 680 fm; wind, 300°, force 1; weather, cloudy; sea, moderate; wire angle, 12°.

0	19.9	33.40	0	19.9	33.40	23.59	431	0.00
10	19.96	33.42	10	19.96	33.42	23.59	431	0.04
30	17.42	33.26	20	19.16	33.35	23.74	417	0.09
45	14.82	33.10	30	17.42	33.26	24.10	382	0.13
55	13.68	33.08	50	14.27	33.09	24.68	327	0.20
64	12.74	33.01	75	12.10	33.12	25.13	284	0.27
74	12.18	33.11	100	10.30	33.29	25.59	240	0.34
83	11.42	33.18	150	8.96	33.75	26.17	185	0.45
99	10.33	33.28	200	8.37	33.98	26.44	160	0.54
128	9.30	33.46	250	7.70	34.01	26.56	148	0.61
162	8.80	33.85	300	7.03	34.06	26.70	135	0.69
214	8.20	34.00	400	6.31	34.20	26.90	116	0.82
276	7.36	34.02	500	6.15	34.34	27.03	103	0.93
387	6.34	34.18	600	5.69	34.37	27.12	96	1.04
514	6.11	34.18u						
647	5.42	34.38						

100.50

CREST; September 1, 1954; 0910 GCT; 31°01'N, 118°06'W; sounding, 850 fm; wind, 320°, force 2; weather, missing; sea, slight; wire angle, 05°.

0	18.5	33.33	0	18.5	33.33	23.89	403	0.00
10	18.19	33.26	10	18.19	33.26	23.92	400	0.04
40	17.58	33.44	20	17.91	33.33	24.04	388	0.08
45	17.44	33.42	30	17.73	33.42	24.15	378	0.12
50	15.67	33.19	50	15.67	33.19	24.45	349	0.19
55	14.52	33.04	75	12.64	32.97	24.91	305	0.27
60	14.02	33.03	100	10.44	33.22	25.51	248	0.34
70	12.90	32.94	150	8.99	33.69	26.12	190	0.45
90	10.91	33.10	200	8.46	34.04	26.47	157	0.54
95	10.56	33.24	250	7.99	34.13	26.61	144	0.62
100	10.44	33.22	300	7.44	34.15	26.71	134	0.69
149	9.00	33.68	400	6.39	34.18	26.88	118	0.82
248	8.00	34.13	500	5.71	34.28	27.04	103	0.94
396	6.42	34.18	600	(5.27)	(34.38)	(27.17)	(91)	(1.04)
596	5.28	34.37	700	(4.90)	(34.44)	(27.26)	(82)	(1.14)
895	4.36	34.51	800	(4.62)	(34.48)	(27.33)	(75)	(1.22)
1197	3.56	34.55	1000	4.08	34.53	27.43	66	(1.38)

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; August 31, 1954; 2316 GCT; 30°20.5'N 119°28'W; sounding, 2000 fm; wind, 310°, force 5; weather, partly cloudy; sea, very rough; wire angle, 28°. 100.70

0	19.0	33.39	0	19.0	33.39	23.81	410	0.00
9	18.94	33.41	10	18.93	33.41	23.85	407	0.04
18	18.89	33.40	20	18.90	33.40	23.85	407	0.08
23	18.92	33.39	30	18.89	33.41	23.86	406	0.12
27	18.92	33.39	50	17.10	33.26	24.18	375	0.20
31	18.89	33.41	75	14.87	33.14	24.59	336	0.29
35	18.78	33.39	100	13.57	33.13	24.85	311	0.37
40	18.37	33.29	150	10.28	33.41	25.68	232	0.51
44	17.84	33.28	200	8.89	33.68	26.12	190	0.62
65	15.67	33.21	250	8.30	33.91	26.39	164	0.71
85	14.08	33.07	300	7.83	34.06	26.58	146	0.79
167	9.46	33.50	400	7.12	34.21	26.80	126	0.93
291	7.90	34.04	500	6.33	34.28	26.96	110	1.05
417	7.01	34.22	600	5.66	34.32	27.08	99	1.16
635	5.44	34.34	700	5.12	34.37	27.18	90	1.26
861	4.49	34.44	800	4.71	34.42	27.27	81	1.36
1099	3.70	34.52	1000	4.00	34.49	27.40	69	1.53

CREST; August 31, 1954; 0335 GCT; 31°05'N, 116°25.5'W; sounding, 37 fm; wind, 200°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°. 103.30

0	16.26	33.28	0	16.26	33.28	24.39	355	0.00
5	15.42	33.23	10	14.71	33.28	24.73	322	0.03
10	14.71	33.28	20	12.68	33.21	25.09	288	0.06
16	13.16	33.19	30	11.80	33.24	25.28	270	0.09
21	12.57	33.22	50	11.19	33.47	25.57	242	0.14
26	12.06	33.25						
31	11.76	33.24						
36	11.50	33.27						
41	11.43	33.40						
46	11.26	33.40						
51	11.18	33.47						
56	11.12	33.44						

CREST; August 31, 1954; 0847 GCT; 30°46'N, 117°04'W; sounding, 850 fm; wind, 310°, force 5; weather, clear; sea, moderate; wire angle, 15°. 103.40

0	20.1	33.47	0	20.1	33.47	23.59	431	0.00
10	20.02	33.44	10	20.02	33.44	23.59	432	0.04
20	19.51	33.43	20	19.51	33.43	23.71	420	0.09
30	16.78	33.23	30	16.78	33.23	24.23	370	0.12
39	14.94	33.12	50	13.86	33.08	24.75	320	0.19
49	13.91	33.08	75	11.92	33.10	25.15	282	0.27
58	13.30	33.03	100	9.83	33.44	25.78	222	0.33
68	12.36	33.05	150	9.81	33.97	26.20	183	0.44
78	11.75	33.13	200	9.47	34.23	26.46	158	0.52
83	10.79	33.25	250	9.10	34.35	26.61	144	0.60
92	10.24	33.33	300	8.68	34.36	26.69	136	0.67
137	9.86	33.91	400	7.44	34.38	26.89	117	0.81
156	9.78	34.00	500	6.59	34.38	27.01	106	0.92
228	9.28	34.33	600	6.00	34.40	27.10	97	1.03
322	8.44	34.37						
465	6.83	34.38						
624	5.88	34.40						

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

107.35

CREST; August 30, 1954; 2052 GCT; 30°20.5'N, 116°23.5'W; sounding, 900 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 16°.

0	18.2	33.36	0	18.2	33.36	23.99	393	0.00
10	18.18	33.40	10	18.18	33.40	24.02	390	0.04
15	18.06	33.35	20	15.64	33.30	24.54	340	0.08
20	15.64	33.30	30	12.74	33.31	25.16	281	0.11
25	13.84	33.22	50	10.51	33.48	25.70	230	0.16
35	11.97	33.39	75	10.37	33.75	25.93	208	0.21
49	10.60	33.48	100	10.21	33.87	26.05	197	0.26
59	10.08	33.51	150	10.38	34.15	26.24	179	0.36
69	10.39	33.73	200	10.19	34.36	26.44	160	0.45
88	10.28	33.78	250	9.71	34.38	26.54	150	0.53
117	10.18	34.00	300	9.21	34.40	26.63	142	0.60
146	10.39	34.13	400	8.10	34.45	26.85	121	0.74
194	10.24	34.36	500	6.85	34.37	26.96	110	0.86
292	9.28	34.40						
390	8.24	34.45						
489	6.96	34.38						
589	6.26	34.33u						

110.33

CREST; August 29, 1954; 1740 GCT; 29°50.5'N, 115°52'W; sounding, 46 fm; wind, 330°, force 3; weather, partly cloudy; sea, moderate; wire angle, 14°.

0	20.20	33.62	0	20.20	33.62	23.68	423	0.00
5	20.16	33.60	10	20.11	33.61	23.69	422	0.04
10	20.11	33.61	20	20.04	33.58	23.69	422	0.08
12	20.09	33.59	30	16.79	33.39	24.35	359	0.12
14	20.10	33.58	50	11.50	33.23	25.33	265	0.19
16	20.10	33.57	75	10.77	33.43	25.62	238	0.25
18	20.08	33.62						
20	20.04	33.58						
25	19.2	33.44						
35	14.85	33.35						
40	13.52	33.28						
45	11.73	33.19						
50	11.50	33.23						
55	11.33	33.27						
65	11.0	33.30						
75	10.77	33.43						

110.40

CREST; August 29, 1954; 2146 GCT; 29°36.5'N, 116°17.5'W; sounding, 1325 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 30°.

0	20.5	33.60	0	20.5	33.60	23.58	432	0.00
10	20.48	33.61	10	20.48	33.61	23.60	431	0.04
19	19.90	33.58	20	19.78	33.56	23.74	417	0.09
32	17.89	33.33	30	18.28	33.37	23.98	394	0.13
36	16.88	33.25	50	14.79	33.22	24.67	328	0.20
40	16.32	33.24	75	12.60	33.23	25.12	285	0.28
45	15.88	33.26	100	10.56	33.43	25.65	235	0.34
52	14.56	33.22	150	9.63	33.98	26.24	179	0.45
68	13.46	33.22	200	(9.31)	(34.28)	(26.53)	(151)	(0.53)
91	11.02	33.30	250	(9.00)	(34.38)	(26.65)	(140)	(0.60)
119	9.84	33.69	300	(8.67)	(34.42)	(26.74)	(131)	(0.68)
157	9.58	34.04	400	7.83	34.36	26.82	124	(0.81)
306	8.62	34.42	500	6.90	34.34	26.93	113	(0.94)
460	7.29	34.34	600	6.02	34.36	27.07	100	(1.05)
697	5.46	34.38	700	5.45	34.38	27.15	92	(1.15)
945	4.50	34.46	800	5.03	34.41	27.23	85	(1.25)
1207	3.43	34.56	1000	4.29	34.48	27.36	73	(1.43)

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; August 30, 1954; 0813 GCT; 28°57'N, 117°38.5'W; sounding, 2000 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 12°. 110.60

0	20.5	33.58	0	20.5	33.58	23.57	433	0.00
10	20.48	33.58	10	20.48	33.58	23.57	433	0.04
35	20.45	33.58	20	20.46	33.58	23.58	432	0.09
50	16.10	33.26	30	20.44	33.58	23.58	432	0.13
54	15.46	33.24	50	16.10	33.26	24.41	353	0.21
59	14.90	33.25	75	11.93	33.36	25.35	263	0.29
64	14.20	33.23	100	10.48	33.55	25.76	224	0.35
73	12.20	33.35	150	9.84	34.11	26.30	173	0.45
89	10.76	33.41	200	8.34	34.34	26.73	132	0.53
108	10.28	33.68	250	7.74	34.35	26.82	124	0.59
146	9.83	34.08	300	7.31	34.36	26.89	117	0.65
194	8.46	34.34	400	6.70	34.39	27.00	107	0.77
293	7.37	34.36	500	(6.21)	(34.41)	(27.08)	(99)	(0.88)
490	6.26	34.41	600	(5.67)	(34.44)	(27.17)	(91)	(0.98)
787	4.78	34.47	700	(5.13)	(34.46)	(27.25)	(83)	(1.08)
1086	3.82	34.39u	800	4.72	34.47	27.31	77	(1.16)
1385	3.13	34.43	1000	4.06	34.43	27.35	74	(1.33)

CREST; August 28, 1954; 0816, 0851 GCT; 29°10.5'N, 115°37.5'W; sounding, 700 fm; wind, 320°, force 5; weather, clear; sea, moderate; wire angle, 43°, 57°. 113.35

0	19.5	33.48	0	19.5	33.48	23.76	416	0.00
9	19.47	33.49	10	19.46	33.49	23.77	414	0.04
16	19.30	33.48	20	18.92	33.43	23.86	405	0.08
23	18.46	33.39	30	16.12	33.31	24.44	350	0.12
26	17.66	33.37	50	12.67	33.19	25.08	289	0.18
29	16.62	33.32	75	11.35	33.34	25.44	255	0.25
32	15.06	33.28	100	10.40	33.47	25.71	229	0.31
35	14.43	33.19	150	9.97	34.00	26.20	183	0.42
48	12.84	33.19	200	10.28	34.41	26.46	158	0.50
61	11.94	33.24	250	9.60	34.40	26.57	147	0.58
89	10.86	33.42	300	9.56	34.40	26.58	146	0.66
103	10.18	33.48						
114	9.62	33.58						
153	10.00	34.03						
210	10.29	34.42						
277	-	34.39						
353	9.02	34.47						

CREST; August 27, 1954; 1705 GCT; 28°48'N, 114°56.5'W; sounding, 56 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 19°. 117.30

0	18.5	-	0	18.5	(33.38)	(23.93)	(399)	(0.00)
11	18.28	33.37	10	18.41	(33.37)	(23.95)	(397)	(0.04)
20	15.26	33.24	20	15.26	33.24	24.58	337	0.08
25	13.86	33.21	30	13.04	33.31	25.10	287	0.11
30	13.04	33.31	50	10.43	33.51	25.74	226	0.16
35	12.20	33.36	75	10.40	33.85	26.01	201	0.21
39	11.33	33.40	100	10.00	33.87	26.09	193	0.26
44	10.68	33.45						
49	10.44	33.48						
54	10.38	33.57						
59	10.26	33.61						
64	10.23	33.63						
69	10.22	33.71						
74	10.39	33.84						
83	10.29	33.88						
93	10.03	33.88						
102	10.00	33.87						
103a)	-	33.88						

a) On stations where no temperature is listed for the last depth, the Nansen bottle was placed on the cast one meter above the bottom for a water sample only.

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
117.40	CREST; August 28, 1954; 0112 GCT; 28°27'N, 115°35'W; sounding, 550 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 14°.							
0	20.3	33.51	0	20.3	33.51	23.57	433	0.00
10	20.10	33.48	10	20.10	33.48	23.60	431	0.04
20	18.77	33.44	20	18.77	33.44	23.91	401	0.08
30	18.20	33.51	30	18.20	33.51	24.10	382	0.12
40	16.69	33.30	50	15.85	33.30	24.50	344	0.20
49	15.92	33.30	75	12.09	33.42	25.37	262	0.27
59	14.99	33.28	100	10.82	33.90	25.97	204	0.33
68	13.54	33.28	150	11.18	34.19	26.13	189	0.43
78	11.74	33.48	200	10.51	34.24	26.29	174	0.52
88	11.22	33.58	250	10.06	34.35	26.45	159	0.61
97	10.80	33.86	300	9.50	34.38	26.57	148	0.69
116	11.30	34.04	400	8.22	34.38	26.77	128	0.83
144	11.24	34.18	500	7.02	34.38	26.95	111	0.96
193	10.58	34.23	600	(5.99)	(34.38)	(27.09)	(98)	(1.07)
288	9.66	34.38						
434	7.78	34.38						
582	6.14	34.38						
118.35	CREST; August 27, 1954; 2017 GCT; 28°26'N, 115°06'W; sounding, 80 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 13°.							
0	20.09	33.53	0	20.09	33.53	23.64	427	0.00
5	20.10	33.53	10	19.99	33.55	23.68	423	0.04
10	19.99	33.55	20	19.22	33.48	23.83	409	0.08
15	19.51	33.48	30	18.58	33.46	23.97	395	0.12
20	19.22	33.48	50	14.19	33.34	24.89	307	0.20
25	18.88	33.48	75	11.51	33.45	25.50	249	0.26
30	18.58	33.46	100	10.88	33.74	25.84	217	0.32
45	15.12	33.35						
59	12.86	33.33						
74	11.53	33.44						
89	11.10	33.73						
104	10.78	33.74						
119	10.32	33.86						
129	10.54	34.00						
139	10.54	34.02						
118.25	CREST; August 27, 1954; 1150 GCT; 28°41'N, 114°28.5'W; sounding, 48 fm; wind, 310°, force 3; weather, clear; sea, slight; wire angle, 00°.							
0	19.40	33.38	0	19.40	33.38	23.70	421	0.00
10	18.79	33.33	10	18.79	33.33	23.82	409	0.04
15	15.51	33.27	20	15.17	33.25	24.61	334	0.08
20	15.17	33.25	30	14.24	33.26	24.81	315	0.11
25	14.72	33.25	50	11.84	33.34	25.35	263	0.17
30	14.24	33.26	75	10.47	33.63	25.82	219	0.23
35	13.79	33.26						
41	13.04	33.30						
46	12.24	33.34						
51	11.78	33.34						
56	11.54	33.31						
61	11.04	33.40						
66	10.87	33.45						
71	10.58	33.50						
76	10.45	33.64						
82	10.41	33.67						
88a)	-	33.68						

a) See footnote, page 239.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; August 27, 1954; 0907 GCT; 28°23.5'N, 114°15.5'W; sounding, 30 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 03°. 120.25

0	19.8	-	0	19.8	(33.30)	(23.54)	(436)	(0.00)
4	19.90	33.31	10	19.90	33.35	23.55	435	0.04
9	19.90	33.35	20	19.56	33.34	23.63	427	0.09
14	19.90	33.35	30	16.06	33.27	24.43	351	0.12
19	19.82	33.35	50	13.67	33.24	24.92	304	0.19
24	16.62	33.27						
29	16.17	33.27						
34	15.51	33.27						
39	14.62	33.26						
44	14.12	33,26						
49	13.68	33.24						
54	13.63	33.27						
55a)	-	33.27						

CREST; August 27, 1954; 0700 GCT; 28°18'N, 114°27'W; sounding, 50 fm; wind, 310°, force 4; weather, clear; sea, missing; wire angle, 05°. 120.28

0	19.2	-	0	19.2	(33.38)	(23.75)	(416)	(0.00)
3	19.20	33.37	10	19.16	33.36	23.75	416	0.04
8	19.18	33.33	20	17.91	33.38	24.08	384	0.08
13	19.00	33.37	30	15.87	33.38	24.55	340	0.12
18	18.39	33.38	50	12.62	33.26	25.14	283	0.18
23	17.22	33.37	75	10.58	33.68	25.84	217	0.24
28	16.28	33.39						
33	15.30	33.35						
38	14.62	33.28						
43	13.97	33.22						
48	12.95	33.24						
53	12.19	33.30						
58	11.53	33.39						
64	10.90	33.49						
69	10.50	33.67						
74	10.57	33.68						
84	10.54	33.80						

CREST; August 26, 1954; 0530 GCT; 28°02.5'N, 114°54'W; sounding, 45 fm; wind, 350°, force 4; weather, clear; sea, rough; wire angle, 14°. 120.35

0	20.4	-	0	20.4	(33.40)	(23.46)	(444)	(0.00)
2	20.42	33.40	10	20.42	33.38	23.44	446	0.04
12	20.41	33.38	20	20.33	33.39	23.47	443	0.09
26	20.20	33.40	30	19.90	33.40	23.59	431	0.13
36	19.72	33.39	50	16.62	33.30	24.32	361	0.21
41	19.13	33.23	75	11.33	33.57	25.62	238	0.29
46	18.17	33.33						
49	17.02	33.30						
52	15.70	33.30						
55	14.84	33.29						
58	13.68	33.32						
61	12.46	33.38						
64	11.83	33.47						
67	11.44	33.58						
70	11.32	33.57						
74	11.35	33.57						
77	11.30	33.53b)						

a) See footnote, page 239.
b) Last bottle touched bottom.

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

120.50 CREST; August 25, 1954; 2043 GCT; 27°33'N, 115°52'W; sounding, 1975 fm; wind, 350°, force 5; weather, cloudy; sea, rough; wire angle, 25°.

0	20.9	33.63	0	20.9	33.63	23.50	440	0.00
10	20.89	33.62	10	20.89	33.62	23.50	440	0.04
28	20.80	33.61	20	20.83	33.62	23.51	439	0.09
32	19.25	33.43	30	20.42	33.57	23.58	432	0.13
36	18.19	33.32	50	16.02	33.21	24.39	355	0.21
41	17.43	33.26	75	12.97	33.01	24.88	308	0.29
45	16.79	33.27	100	11.48	33.27	25.36	262	0.37
50	16.02	33.21	150	10.28	33.91	26.07	195	0.48
55	15.49	33.19	200	9.52	34.10	26.35	168	0.57
67	13.80	33.10	250	8.98	34.22	26.53	151	0.66
89	11.94	33.06	300	8.55	34.31	26.67	138	0.73
132	10.62	33.78	400	7.80	34.40	26.85	121	0.87
219	9.30	34.15	500	6.75	34.38	26.99	108	0.99
394	7.86	34.40	600	5.95	34.35	27.07	100	1.10
616	5.84	34.35	700	5.36	34.38	27.16	92	1.20
844	4.76	34.45	800	4.93	34.43	27.25	83	1.30
1084	3.82	34.52	1000	4.44	34.50	27.36	73	1.47

120.70 CREST; August 25, 1954; 1031 GCT; 26°52.5'N, 117°10'W; sounding, 2100 fm; wind, 350°, force 3; weather, overcast; sea, missing; wire angle, 08°.

0	21.0	33.69	0	21.0	33.69	23.52	438	0.00
10	20.87	33.64	10	20.87	33.64	23.52	438	0.04
25	20.78	33.62	20	20.85	33.63	23.51	439	0.09
27	20.14	33.55	30	18.82	33.37	23.84	407	0.13
30	18.82	33.37	50	16.08	33.36	24.49	345	0.20
40	17.18	33.31	75	13.09	33.23	25.03	294	0.29
50	16.08	33.36	100	11.20	33.42	25.53	246	0.35
59	15.15	33.33	150	10.04	34.10	26.26	177	0.46
74	13.18	33.23	200	10.20	34.38	26.45	159	0.55
89	11.84	33.35	250	9.81	34.47	26.59	146	0.62
109	10.80	33.46	300	9.28	34.49	26.69	136	0.70
159	10.18	34.14	400	8.07	34.46	26.86	120	0.83
173	10.20	34.20	500	(7.12)	(34.42)	(26.97)	(110)	(0.96)
296	9.34	34.49	600	(6.30)	(34.40)	(27.06)	(101)	(1.07)
492	7.17	34.42	700	(5.62)	(34.40)	(27.15)	(92)	(1.17)
789	5.10	34.41	800	5.04	34.41	27.22	86	(1.27)
1187	3.69	34.54	1000	4.23	34.47	27.36	73	(1.45)

120.90 CREST; August 25, 1954; 0025 GCT; 26°12.5'N, 118°27'W; sounding, 2175 fm; wind, 350°, force 2; weather, overcast; sea, moderate; wire angle, 14°.

0	20.2	33.53	0	20.2	33.53	23.61	429	0.00
10	20.12	33.55	10	20.12	33.55	23.65	426	0.04
25	20.07	33.58	20	20.10	33.58	23.67	423	0.08
30	19.54	33.55	30	19.54	33.55	23.80	412	0.13
32	18.10	33.35	50	16.61	33.33	24.35	359	0.20
34	17.85	33.40	75	15.50	33.31	24.58	337	0.29
36	17.47	33.35	100	13.84	33.30	24.93	303	0.37
40	17.24	33.32	150	10.91	33.57	25.70	230	0.51
46	16.86	33.33	200	10.20	34.21	26.32	171	0.61
75	15.50	33.31	250	9.59	34.33	26.52	152	0.69
100	13.84	33.30	300	8.99	34.37	26.65	140	0.77
124	11.58	33.30	400	7.95	34.40	26.83	123	0.90
148	10.96	33.52	500	(6.98)	(34.41)	(26.98)	(109)	(1.03)
243	9.68	34.32	600	(6.05)	(34.42)	(27.11)	(96)	(1.14)
481	7.14	34.41	700	(5.32)	(34.44)	(27.22)	(86)	(1.24)
768	4.93	34.45	800	4.77	34.46	27.30	78	(1.33)
1160	3.60	34.57	1000	4.02	34.52	27.42	67	(1.49)

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

120.30

CREST; August 27, 1954; 0407 GCT; 28°07.5'N, 114°29'W; sounding, 47 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 08°.

0	19.8	-	0	19.8	(33.36)	(23.59)	(432)	(0.00)
1	19.8	33.36	10	19.76	33.41	23.63	427	0.04
11	19.74	33.42	20	19.54	33.43	23.71	420	0.08
16	19.72	33.44	30	16.40	33.35	24.41	353	0.12
21	19.41	33.43	50	12.81	33.31	25.14	283	0.19
26	16.82	33.39	75	10.63	33.64	25.80	221	0.25
31	16.26	33.34						
36	14.92	33.32						
42	14.66	33.51u						
47	13.12	33.31						
52	12.64	33.32						
57	12.08	33.38						
62	11.12	33.46						
67	9.92r	33.39						
72	10.74	33.55						
78	10.54	33.67						
80a)	-	33.63						

121.29

CREST; August 27, 1954; 0231 GCT; 28°04.5'N, 114°21'W; sounding, 18 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 05°.

0	21.30	33.51	0	21.30	33.51	23.30	459	0.00
2	21.32	33.56	10	21.33	33.56	23.33	456	0.05
4	21.30	33.56	20		33.39			
6	21.34	33.55						
8	21.3	33.55						
10	21.33	33.56						
12	21.31	33.57						
14	-	33.49						
16	-	33.52						
18	-	33.31u						
20	-	33.39						
22	-	33.39						
24	-	33.40						
26	-	33.36						
28	-	33.33						
32a)	-	33.34						

121.32

CREST; August 26, 1954; 0808 GCT; 28°01.5'N, 114°35'W; sounding, 39 fm; wind, 360°, force 4; weather, clear; sea, missing; wire angle, 06°.

0	19.25	33.41	0	19.25	33.41	23.76	415	0.00
5	19.22	33.44	10	19.24	33.44	23.79	412	0.04
10	19.24	33.44	20	17.94	33.40	24.08	384	0.08
15	18.68	33.48	30	16.75	33.40	24.37	357	0.12
20	17.94	33.40	50	13.31	33.28	25.02	295	0.18
25	17.52	33.40						
30	16.75	33.40						
35	15.95	33.33						
40	14.38	33.32						
45	13.90	33.33						
50	13.31	33.28						
55	12.07	33.40						
60	11.30	33.44						
65	11.24	33.47						
71a)	-	33.42						

a) See footnote, page 239.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} T^3 cm/g	ΔD dyn. m
123.40	CREST; August 24, 1954; 0140 GCT; 27°18'N, 114°52'W; sounding, 295 fm; wind, 280°, force 5; weather, clear; sea, rough; wire angle, 35°.							
0	18.6	33.58	0	18.6	33.58	24.06	386	0.00
5	18.50	33.60	10	18.33	33.58	24.13	380	0.04
9	18.39	33.58	20	15.30	33.45	24.73	322	0.07
13	18.20	33.57	30	14.32	33.60	25.06	291	0.10
17	16.52	33.53						
21	15.02	33.41						
24	14.51	33.47						
28	14.32	33.56						
32	14.30	33.62						
37	13.88	33.61						
40	13.15	33.86						
127.34	CREST; August 23, 1954; 1843 GCT; 26°56'N, 114°07.5'W; sounding, 51 fm; wind, 280°, force 4; weather, partly cloudy; sea, slight; wire angle, 10°.							
0	19.50	33.59	0	19.50	33.59	23.84	408	0.00
5	19.37	33.62	10	19.14	33.58	23.92	400	0.04
10	19.14	33.58	20	17.90	33.49	24.16	377	0.08
15	18.76	33.53	30	14.86	33.40	24.79	317	0.11
20	17.90	33.49	50	13.07	33.65	25.35	263	0.17
26	15.94	33.40	75	13.06	33.90	25.55	244	0.24
30	14.86	33.40						
35	14.08	33.46						
41	13.17	33.58						
45	13.13	33.62						
51	13.07	33.66						
56	13.09	33.76						
60	13.12	33.82						
65	13.10	33.87						
71	13.13	33.91						
81	12.74	33.86						
127.50	CREST; August 23, 1954; 0907 GCT; 26°21'N, 115°10.5'W; sounding, 1800 fm; wind, 340°, force 3; weather, missing; sea, moderate; wire angle, 28°.							
0	19.5	33.49	0	19.5	33.49	23.76	415	0.00
10	19.44	33.48	10	19.44	33.48	23.77	414	0.04
19	19.11	33.45	20	19.06	33.45	23.84	407	0.08
28	17.73	33.44	30	17.31	33.42	24.25	368	0.12
32	16.89	33.39	50	12.44	33.42	25.30	268	0.18
36	16.04	33.39	75	11.58	33.67	25.66	234	0.25
40	14.90	33.37	100	11.57	34.05	25.95	206	0.30
44	13.74	33.41	150	11.29	34.37	26.25	178	0.40
48	12.93	33.44	200	(10.38)	(34.43)	(26.46)	(158)	(0.49)
52	12.14	33.41	250	(9.62)	(34.42)	(26.58)	(146)	(0.56)
56	11.92	33.44	300	(8.99)	(34.41)	(26.68)	(137)	(0.64)
60	11.60	33.48	400	7.90	34.41	26.85	121	(0.78)
83	11.58	33.79	500	7.03	34.42	26.98	109	(0.90)
119	11.44	34.25						
194	10.44	34.43						
311	8.84	34.41						
526	6.82	34.42						
130.30	CREST; August 22, 1954; 1038 GCT; 26°26'N, 113°32'W; sounding, 48 fm; wind, 350°, force 3; weather, clear; sea, moderate; wire angle, 20°.							
0	21.66	33.89	0	21.66	33.89	23.49	441	0.00
5	21.63	33.90	10	21.34	33.93	23.61	430	0.04
10	21.34	33.93	20	16.02	33.58	24.67	328	0.08
15	20.22	33.79	30	14.33	33.60	25.06	291	0.11
20	16.02	33.58	50	13.07	33.74	25.42	257	0.17
25	14.98	33.58	75	(12.86)	(33.97)	(25.64)	(236)	(0.23)
34	13.92	33.61						
44	13.30	33.63						
53	12.96	33.78						
63	12.74	33.98a)						
73	12.82	34.03a)						

a) Salinity samples at 63 and 73 meters appear to have been reversed; they are assumed to be listed in correct order.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; August 22, 1954; 1600 GCT; 26°09'N, 114°07.5'W; sounding, 1300 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 06°. 130.40

0	22.0	33.77	0	22.0	33.77	23.31	458	0.00
10	22.06	33.73	10	22.06	33.73	23.26	463	0.05
15	21.97	33.75	20	20.72	33.71	23.61	430	0.09
20	20.72	33.71	30	14.33	33.68	25.12	285	0.13
22	19.41	33.68	50	(11.88)	(33.88)	(25.76)	(224)	(0.18)
24	16.13	33.69	75	(11.56)	(34.11)	(26.00)	(202)	(0.23)
26	15.39	33.69	100	(11.37)	(34.29)	(26.18)	(184)	(0.28)
28	14.86	33.69	150	10.99	34.46	26.38	166	(0.37)
30	14.33	33.68	200	10.36	34.54	26.55	149	(0.45)
35	13.18	33.75	250	9.99	34.57	26.64	141	(0.52)
40	12.65	33.78	300	9.62	34.59	26.72	133	(0.60)
101	11.32	34.29	400	8.64	34.57	26.86	120	(0.73)
201	10.34	34.54	500	7.34	34.50	27.00	107	(0.85)
349	9.28	34.60	600	6.37	34.45	27.09	98	(0.96)
599	6.37	34.45	700	5.66	34.47	27.20	88	(1.06)
897	4.62	34.50	800	5.09	34.48	27.27	81	(1.16)
1199	3.39	34.58	1000	4.16	34.52	27.41	68	(1.32)

CREST; August 23, 1954; 0206 GCT; 25°31.5'N, 115°24'W; sounding, 2080 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 12°. 130.60

0	22.9	33.68	0	22.9	33.68	22.98	489	0.00
10	22.88	33.68	10	22.88	33.68	22.99	489	0.05
20	22.82	33.65	20	22.82	33.65	22.98	489	0.10
25	19.90	33.55	30	16.70	33.48	24.44	350	0.14
27	17.93	33.46	50	11.80	33.56	25.53	246	0.20
29	17.15	33.47	75	11.36	33.92	25.89	212	0.26
31	16.30	-	100	11.00	34.17	26.15	187	0.31
33	15.67	33.49	150	10.23	34.28	26.37	166	0.40
35	15.02	33.46	200	9.51	34.35	26.55	149	0.48
40	13.76	33.46	250	8.89	34.38	26.67	138	0.55
44	12.68	33.57	300	8.36	34.40	26.77	128	0.62
50	11.80	33.56	400	7.42	34.42	26.92	114	0.75
98	11.02	34.16	500	(6.67)	(34.43)	(27.04)	(103)	(0.86)
243	8.98	34.38	600	(5.99)	(34.44)	(27.13)	(94)	(0.97)
483	6.78	34.43	700	(5.42)	(34.45)	(27.21)	(87)	(1.07)
774	5.06	34.46	800	4.96	34.47	27.28	80	(1.16)
1170	3.72	34.60	1000	4.21	34.54	27.42	67	(1.33)

CREST; August 22, 1954; 0159 GCT; 25°54.5'N, 113°07'W; sounding, 109 fm; wind, 270°, force 3; weather, clear; sea, moderate; wire angle, 13°. 133.30

0	21.92	33.52	0	21.92	33.52	23.14	474	0.00
10	21.21	33.55	10	21.21	33.55	23.35	454	0.05
20	16.96	33.48	20	16.96	33.48	24.38	356	0.09
30	16.05	33.48	30	16.05	33.48	24.59	336	0.12
40	14.80	33.40	50	13.65	33.40	25.04	293	0.18
51	13.57	33.40	75	13.31	33.98	25.56	243	0.25
61	13.22	33.58	100	12.86	34.14	25.77	223	0.31
71	13.24	33.85	150	(11.95)	(34.38)	(26.14)	(188)	(0.42)
80	13.34	34.10						
90	13.12	34.11						
100	12.86	34.14						
111	12.59	34.24						
120	12.32	34.22						
131	12.13	34.34						
140	12.00	34.38						
149	11.95	34.38						

CREST; August 21, 1954; 1103 GCT; 25°34'N, 112°18.5'W; sounding, 40 fm; wind, 280°, force 2; weather, partly cloudy; sea, missing; wire angle, 00°. 137.23

0	23.66	33.72	0	23.66	33.72	22.80	507	0.00
10	-	33.73	10		33.73			
20	-	34.13	20		34.13			
30	-	34.04	30		34.04			
41	-	34.13	50		34.25			
51	-	34.26						
61	-	34.42						

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
60.55-F	VIII-31	2030	37°47.5'	123°14.5'	65	330°	5	overcast	rough	13.63	33.52
60.70-F	IX-1	0410	37°17.0'	124°20.0'	2260	330°	5	partly cloudy	very rough	14.84	33.36
60.90-F	1	1415	36°36.0'	125°58.0'	2500	330°	5	partly cloudy	moderate	16.86	33.07
63.55-F	VIII-27	2145	37°13.0'	122°49.0'	150	160°	5	overcast	rough	14.72	33.43
67.55-F	27	1137	36°41.0'	122°28.0'	1020	170°	4	overcast	missing	14.27	33.41
70.55-F	IX-2	2045	36°03.0'	122°01.0'	800	310°	5	partly cloudy	moderate	12.66	33.51
70.70-F	2	1320	35°33.0'	123°05.5'	2150	330°	4	overcast	rough	14.70	33.30
73.50-F	3	0935	35°37.0'	121°17.5'	60	330°	2	clear	moderate	12.04	33.46
73.55-F	3	0705	35°27.0'	121°39.0'	670	320°	6	clear	very rough	14.36	33.37
77.50-F	3	1340	35°04.0'	120°56.0'	125	330°	3	overcast	rough	13.33	33.45
77.65-F	3	2020	34°38.5'	121°54.5'	2200	320°	4	clear	rough	16.10	33.40
80.51-F	5	1020	34°25.5'	120°33.5'	70	320°	6	overcast	moderate	13.36	33.28
80.60-F	5	0500	34°06.0'	121°12.0'	1370	330°	6	overcast	rough	15.18	33.40
80.80-F	4	2010	33°30.5'	122°30.0'	2250	330°	5	partly cloudy	rough	16.88	33.33
80.100-F	4	0920	32°49.5'	123°54.0'	2450	330°	4	clear	rough	17.99	33.13
83.40-F	5	1900	34°14.0'	119°22.5'	15	200°	1	cloudy	calm	18.62	33.46
83.48-F	5	2230	33°57.5'	119°55.0'	55	310°	2	clear	slight	18.78	33.46
83.55-F	6	0215	33°43.5'	120°25.0'	660	330°	4	cloudy	rough	16.12	33.46
85.40-F	6	1920	33°58.0'	119°09.0'	405	calm		clear	slight	18.89	33.41

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
85.50-F	IX-6	1320	33°36.5'	119°55.0'	175	310°	3	overcast	rough	18.43	33.52
85.60-F	6	0750	33°19.0'	120°35.5'	860	320°	6	missing	rough	15.73	-
87.35-F	6	2307	33°49.0'	118°37.5'	475	250°	2	clear	moderate	18.64	33.32
87.45-F	7	0410	33°29.5'	119°20.0'	950	280°	4	clear	moderate	18.46	33.56
87.55-F	7	1030	33°10.0'	120°02.5'	660	310°	6	clear	very rough	15.95	33.49
90.30-F	8	1550	33°23.5'	117°54.0'	335	180°	2	cloudy	slight	20.22	33.46
90.45-F	8	0925	32°57.0'	118°50.5'	810	330°	3	clear	moderate	18.20	33.48
90.60-F	8	0135	32°20.5'	119°56.0'	620	310°	4	clear	very rough	17.50	33.50
93.27-F	8	2120	32°55.0'	117°17.5'	45	220°	2	clear	slight	23.03a)	33.51
93.35-F	9	0140	32°40.0'	117°51.0'	340	250°	2	cloudy	slight	20.22	33.46
93.40-F	9	0350	32°30.0'	118°11.5'	850	310°	1	overcast	slight	19.71	33.43
93.45-F	9	0630	32°20.0'	118°33.0'	950	310°	2	overcast	slight	19.18	33.42
97.30-F	10	0035	32°14.0'	117°07.0'	40	310°	2	clear	slight	21.21	33.52
97.32-F	9	2320	32°08.5'	117°11.0'	770	290°	2	clear	slight	21.69	33.55
97.45-F	9	1540	31°45.5'	118°16.0'	1450	310°	2	overcast	slight	18.89	33.40
97.50-F	9	1310	31°35.5'	118°34.0'	1350	270°	4	overcast	moderate	18.78	33.41

a) Alternate value, 22.84°C.

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
100.29-C	IX-1	1930	31°42.0'	116°43.0'	53	270°	2	partly cloudy	moderate	16.68	-
100.30-C	1	1844	31°40.5'	116°46.5'	275	050°	1	partly cloudy	moderate	15.30	33.29
100.35-C	1	1635	31°29.0'	117°05.0'	650	310°	2	partly cloudy	moderate	19.92	33.44
100.40-C	1	1445	31°22.5'	117°23.5'	900	200°	3	partly cloudy	moderate	19.56	33.39
100.45-C	1	1214	31°11.5'	117°44.5'	900	330°	1	missing	slight	18.28	33.26
100.60-C	1	0415	30°40.5'	118°47.0'	1100	330°	2	missing	moderate	18.36	33.24
103.35-C	VIII-31	0605	30°55.0'	116°45.5'	1000	340°	2	clear	moderate	16.38	-
107.32-C	30	2247	30°25.5'	116°11.0'	315	310°	3	partly cloudy	moderate	18.42	33.35
107.40-C	30	1818	30°11.0'	116°42.0'	1400	320°	4	partly cloudy	moderate	18.70	33.44
110.35-C	29	1855	29°46.0'	115°59.5'	630	320°	4	partly cloudy	moderate	20.31	33.56
110.45-C	30	0053	29°26.0'	116°39.0'	213	330°	5	cloudy	moderate	20.10	33.61
110.50-C	30	0327	29°16.5'	116°58.5'	1620	330°	4	partly cloudy	moderate	19.70	33.51
113.30-C	29	1215	29°22.0'	115°17.0'	32	330°	3	partly cloudy	moderate	13.34	33.30
113.40-C	29	0445	29°02.0'	115°58.5'	1050	320°	4	clear	moderate	20.30	33.46
117.26-C	27	1455	28°56.0'	114°41.0'	41	310°	1	partly cloudy	moderate	17.94	33.32
117.35-C	27	2224	28°38.0'	115°16.0'	110	310°	4	partly cloudy	slight	18.70	33.46
120.30-C	27	0520	28°11.0'	114°38.0'	51	320°	4	clear	moderate	19.55	33.43
120.45-C	25	2345	27°41.0'	115°37.0'	1700	330°	4	partly cloudy	moderate	17.68	33.39
120.60-C	25	1545	27°13.0'	116°30.0'	2050	350°	4	overcast	moderate	20.17	33.57

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
120.80-C	VIII-25	0525	26°33.0'	117°48.0'	2100	330°	2	overcast	slight	20.49	33.52
123.37-C	23	2320	27°24.0'	114°39.5'	39	300°	5	clear	moderate	17.19	33.54
123.45-C	24	0335	27°07.5'	115°12.0'	2300	330°	4	clear	slight	20.10	33.45
123.50-C	24	0715	26°58.0'	115°31.0'	1850	320°	4	clear	slight	21.66	33.69
127.40-C	23	1520	26°43.0'	114°30.0'	1900	calm		cloudy	slight	18.42	33.57
127.45-C	23	1212	26°28.0'	114°49.0'	1750	330°	4	clear	moderate	20.53	33.64
130.35-C	22	1255	26°17.0'	113°49.5'	380	330°	2	partly cloudy	slight	21.75	33.58
130.45-C	22	1855	25°59.5'	114°29.0'	1900	330°	3	partly cloudy	slight	20.48	33.46
130.50-C	22	2120	25°50.5'	114°46.5'	1900	330°	3	partly cloudy	slight	21.76	33.66
133.25-C	22	0443	26°04.5'	112°48.0'	43	280°	3	clear	moderate	22.62	33.71
133.35-C	21	2250	25°44.5'	113°26.0'	450	300°	3	clear	slight	20.56	33.49
133.40-C	21	2010	25°34.0'	113°45.5'	1600	330°	3	cloudy	moderate	22.24	33.68
137.30-C	21	1424	25°20.0'	112°45.5'	210	310°	3	cloudy	slight	23.75	33.73

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

1
(153.19)

PAOLINA-T; September 24, 1954; 1845 GCT; 22°54'N, 110°19'W; sounding, 520 fm; wind, 140°, force 5; weather, cloudy; sea, moderate; wire angle, 15°.[a)]

0	28.09	34.78	0	28.09	34.78	22.22	562	0.00
10	28.05	34.79	10	28.05	34.79	22.24	560	0.06
25	27.16	34.69	20	27.74	34.73	22.30	554	0.11
45	21.26	34.40	30	25.67	34.59	22.85	502	0.16
65	18.08	34.42	50	20.32	34.41	24.25	368	0.25
80	13.82	34.01	75	14.63	34.09	25.37	262	0.33
99	13.80	34.40	100	13.78	34.41	25.80	221	0.39
118	13.12	34.52	150	12.50	34.69	26.27	176	0.49
147	12.58	34.69	200	11.63	34.76	26.49	155	0.58
175	11.74	34.71	250	11.16	34.75	26.57	147	0.66
233	11.52	34.70u	300	10.18	34.64	26.66	139	0.73
292	10.30	34.65	400	8.79	34.57	26.84	122	0.87
417	8.58	34.56	500	7.47	34.54	27.01	106	0.99
558	6.74	34.53	600	6.34	34.51	27.14	93	1.10
702	5.50	34.45	700	5.51	34.45	27.20	88	1.20

2 A
(151.43)

PAOLINA-T; September 25, 1954; 1622 GCT; 22°21'N, 112°00'W; sounding, 1860 fm; wind, 170°, force 5; weather, cloudy; sea, rough; wire angle, 05°.

0	25.40	33.83	0	25.40	33.83	22.36	548	0.00
10	25.40	33.83	10	25.40	33.83	22.36	548	0.06
26	26.27	34.39	20	26.02	34.16	22.42	543	0.11
41	21.64	34.34	30	25.94	34.38	22.61	525	0.16
57	18.49	34.27	50	19.74	34.30	24.32	361	0.25
72	16.23	34.22	75	15.98	34.22	25.17	280	0.33
87	15.36	34.42	100	15.05	34.66	25.72	228	0.40
102	14.99	34.67	150	12.72	34.83	26.34	169	0.50
127	12.99	34.64	200	11.64	34.79	26.51	153	0.58
157	12.62	34.85	250	10.76	34.77	26.66	139	0.66
205	11.54	34.78	300	9.98	34.70	26.74	131	0.73
265	10.56	34.76	400	8.51	34.59	26.89	117	0.86
379	8.82	34.60	500	7.32	34.58	27.06	101	0.98
490	7.41	34.58	600	6.43	34.59	27.19	89	1.08
620	6.29	34.59						

3
(149^{5}.70)

PAOLINA-T; September 26, 1954; 1425 GCT; 21°47'N, 113°51'W; sounding, 2000+ fm; wind, calm; weather, fog; sea, moderate; wire angle, 05°.

0	22.00	34.19	0	22.00	34.19	23.63	428	0.00
10	21.61	34.22	10	21.61	34.22	23.75	416	0.04
25	21.50	34.22	20	21.60	34.22	23.76	415	0.08
41	20.53	34.30	30	21.18	34.24	23.89	402	0.12
57	16.51	34.63	50	18.92	34.50	24.68	327	0.20
72	14.56	34.50	75	14.40	34.51	25.74	226	0.27
87	14.03	34.60	100	13.81	34.73	26.04	198	0.32
102	13.79	34.74	150	12.75	34.82	26.32	171	0.42
127	13.30	34.78	200	11.67	34.77	26.49	155	0.50
157	12.59	34.82	250	10.92	34.71	26.58	146	0.58
205	11.58	34.76	300	10.16	34.65	26.67	138	0.65
263	10.71	34.69	400	8.73	34.57	26.84	122	0.79
366	9.24	34.60	500	7.30	34.53	27.03	104	0.91
487	7.52	34.53	600	6.29	34.52	27.16	92	1.01
617	6.17	34.52						

a) The hydrographic stations occupied on Cruise 5409 are numbered in chronological order with CCOFI numbers given in parentheses. These data were collected by RV Paolina-T during a special pelagic area long-line fishing survey with the Inter-American Tropical Tuna Commission.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

6
(149.88)

PAOLINA-T; September 27, 1954; 1645 GCT; 21°15'N, 115°04'W; sounding, 1900 fm; wind, 120°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	23.75	34.10	0	23.75	34.10	23.06	482	0.00
10	23.61	34.08	10	23.61	34.08	23.08	480	0.05
25	23.55	34.06	20	23.55	34.06	23.08	480	0.10
41	21.30	34.29	30	22.82	34.11	23.33	456	0.14
57	20.20	34.15	50	20.78	34.23	23.99	393	0.23
72	18.33	33.90	75	18.09	33.88	24.41	353	0.32
88	16.50	33.83	100	14.27	33.71	25.15	282	0.40
102	14.04	33.71	150	11.38	34.10	26.03	199	0.52
127	12.29	33.94	200	10.40	34.34	26.39	164	0.62
157	11.18	34.14	250	9.63	34.48	26.63	142	0.70
205	10.31	34.35	300	9.11	34.51	26.74	131	0.77
265	9.45	34.49	400	8.08	34.51	26.90	116	0.90
370	8.47	34.52	500	7.05	34.47	27.02	105	1.02
489	7.17	34.47	600	6.26	34.51	27.15	92	1.12
619	6.13	34.51						

7
(141.98)

PAOLINA-T; September 28, 1954; 1639 GCT; 22°13'N, 116°27'W; sounding, 200+ fm; wind, 350°, force 2; weather, overcast; sea, slight; wire angle, 06°.

0	23.37	33.59	0	23.37	33.59	22.78	508	0.00
10	23.21	33.65	10	23.21	33.65	22.87	500	0.05
25	22.66	33.62	20	22.88	33.62	22.94	493	0.10
40	19.59	33.63	30	21.92	33.62	23.21	467	0.15
55	17.09	33.55	50	18.00	33.59	24.21	372	0.23
70	14.48	33.40	75	14.00	33.47	25.03	294	0.32
85	13.11	33.64	100	12.38	33.81	25.61	239	0.38
100	12.38	33.81	150	11.77	34.41	26.19	184	0.49
125	11.81	34.22	200	10.22	34.45	26.50	154	0.58
154	11.78	34.42	250	9.79	34.53	26.64	141	0.65
201	10.20	34.45	300	9.12	34.54	26.76	129	0.72
261	9.64	34.54	400	7.72	34.50	26.94	112	0.85
364	8.22	34.52	500	6.81	34.46	27.04	103	0.96
483	6.92	34.46	600	6.13	34.48	27.15	92	1.07
613	6.05	34.48						

8
(134.110)

PAOLINA-T; September 29, 1954; 1619 GCT; 23°07'N, 118°03'W; sounding, 2000 fm; wind, 340°, force 4; weather, overcast; sea, moderate; wire angle, 05°.

0	23.13	33.94	0	23.13	33.94	23.11	477	0.00
10	22.86	33.95	10	22.86	33.95	23.20	468	0.05
26	22.71	33.92	20	22.76	33.94	23.22	466	0.09
41	21.90	-	30	22.69	33.89	23.20	468	0.14
56	18.72	33.76	50	20.02	33.79	23.86	405	0.23
71	17.44	33.69	75	17.21	33.69	24.48	346	0.32
86	16.75	33.72	100	15.08	33.43	24.77	319	0.41
101	14.97	33.43	150	11.50	33.57	25.59	240	0.55
125	12.68	33.41	200	9.74	34.07	26.29	174	0.65
154	11.32	33.65	250	9.41	34.24	26.48	156	0.74
203	9.70	34.09	300	8.80	34.31	26.63	142	0.82
262	9.30	34.26	400	7.56	34.38	26.87	119	0.95
367	7.95	34.36	500	6.72	34.40	27.01	106	1.07
487	6.82	34.40	600	6.10	34.42	27.10	97	1.18
615	6.04	34.42						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

9
(128.117)

PAOLINA-T; September 30, 1954; 1641 GCT; 24°00'N, 119°19'W; sounding, 2000+ fm; wind, 010°, force 6; weather, cloudy; sea, moderate; wire angle, 15°.

0	21.93	33.76	0	21.93	33.76	23.32	456	0.00
10	21.93	33.80	10	21.93	33.80	23.35	454	0.05
25	21.76	33.82	20	21.81	33.82	23.40	449	0.09
45	18.66	33.65	30	21.62	33.78	23.42	447	0.14
66	16.28	33.50	50	18.13	33.61	24.20	373	0.22
80	14.96	33.32	75	15.60	33.38	24.61	334	0.31
99	12.98	33.31	100	12.92	33.31	25.12	285	0.38
118	11.80	33.35	150	10.59	33.64	25.81	220	0.51
147	10.63	33.63	200	10.32	34.17	26.27	176	0.61
175	10.28	33.93	250	10.40	34.56	26.56	148	0.70
235	10.42	34.50	300	10.12	34.74	26.75	130	0.77
303	10.07	34.74	400	7.56	34.51	26.97	110	0.90
420	7.26	34.50	500	6.54	34.51	27.12	95	1.00
560	6.17	34.52	600	5.92	34.54	27.22	86	1.10
704	5.26	34.62	700	5.26	34.62	27.37	72	1.19

10
(121.127)

PAOLINA-T; October 1, 1954; 1631 GCT; 24°52'N, 120°45'W; sounding, 2000+ fm; wind, 350°, force 5; weather, overcast; sea, rough; wire angle, 15°.

0	20.62	33.58	0	20.62	33.58	23.54	436	0.00
10	20.61	33.58	10	20.61	33.58	23.54	436	0.04
25	20.79	33.93	20	20.73	33.86	23.72	419	0.09
45	20.65	34.08	30	20.77	33.98	23.80	411	0.13
66	16.94	33.40	50	20.10	33.95	23.96	396	0.21
81	16.45	33.46	75	16.61	33.44	24.43	351	0.30
101	15.20	33.44	100	15.30	33.44	24.73	322	0.39
118	13.08	33.26	150	11.53	33.45	25.49	250	0.53
148	11.56	33.44	200	9.80	33.85	26.11	191	0.64
177	10.58	33.66	250	8.82	34.14	26.49	155	0.73
234	9.00	34.09	300	8.37	34.27	26.67	138	0.81
301	8.35	34.27	400	7.48	34.42	26.92	114	0.94
417	7.32	34.42	500	6.55	34.42	27.04	103	1.06
555	5.85	34.42	600	5.57	34.43	27.18	90	1.16
695	5.20	34.49	700	(5.18)	(34.50)	(27.28)	(80)	(1.25)

11
(115.136)

PAOLINA-T; October 2, 1954; 1647 GCT; 25°33'N, 121°59'W; sounding, 2000+ fm; wind, 360°, force 4; weather, partly cloudy; sea, slight; wire angle, 04°.

0	20.78	34.09	0	20.78	34.09	23.88	403	0.00
10	20.77	34.09	10	20.77	34.09	23.88	403	0.04
26	20.75	34.08	20	20.75	34.08	23.88	403	0.08
41	20.75	34.08	30	20.75	34.08	23.88	403	0.12
57	20.68	34.09	50	20.74	34.09	23.89	402	0.20
72	17.80	33.52	75	17.60	33.47	24.22	371	0.30
87	16.51	33.32	100	15.61	33.34	24.58	337	0.39
102	15.50	33.34	150	12.45	33.47	25.34	264	0.54
127	13.44	33.31	200	10.00	33.79	26.03	199	0.66
157	12.07	33.51	250	9.45	34.08	26.35	168	0.75
203	9.88	33.81	300	8.80	34.21	26.55	149	0.83
264	9.30	34.14	400	7.48	34.31	26.83	123	0.98
370	7.89	34.29	500	6.38	34.36	27.02	105	1.10
491	6.43	34.36	600	5.73	34.42	27.15	92	1.20
618	5.65	34.42						

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

PAOLINA-T; October 3, 1954; 1947, 2027 GCT; 26°33'N, 123°29'W; sounding, 2200 fm; wind, 350°, force 1; weather, partly cloudy; sea, slight; wire angle, 10°, 10°.

IIA (107.145)

0	20.37	33.68	0	20.37	33.68	23.68	422	0.00
10	19.89	33.68	10	19.89	33.68	23.81	410	0.04
25	19.61	33.86	20	19.63	33.84	23.99	393	0.08
40	19.56	33.86	30	19.60	33.86	24.02	390	0.12
55	18.36	33.86	50	18.70	33.86	24.25	368	0.20
70	17.68	33.87	75	17.49	33.86	24.54	340	0.29
85	17.07	33.82	100	16.64	33.86	24.74	321	0.37
100	16.64	33.86	150	12.51	33.38	25.26	272	0.52
126	14.07	33.49	200	9.89	33.59	25.89	212	0.64
155	12.18	33.38	250	8.46	33.85	26.32	171	0.74
203	9.68	33.60	300	7.79	34.06	26.59	146	0.82
			400	7.01	34.22	26.82	124	0.96
264	8.14	33.92	500	6.12	34.28	26.99	108	1.08
367	7.27	34.20	600	5.38	34.40	27.18	90	1.19
488	6.25	34.27						
615	5.29	34.41						

PAOLINA-T; October 4, 1954; 1647 GCT; 27°28'N, 124°45'W; sounding, 2000+ fm; wind, 040°, force 3; weather, partly cloudy; sea, slight; wire angle, 05°.

IIB (101.151)

0	19.68	33.47	0	19.68	33.47	23.70	420	0.00
10	19.65	33.54	10	19.65	33.54	23.76	415	0.04
26	19.65	33.65u	20	19.65	33.56	23.78	413	0.08
41	19.57	33.55	30	19.63	33.67	23.87	405	0.12
57	17.99	33.45	50	18.67	33.47	23.96	396	0.20
72	17.16	33.56	75	17.11	33.61	24.44	350	0.30
88	17.01	33.77	100	16.67	33.85	24.73	322	0.38
103	16.54	33.86	150	12.83	33.24	25.08	289	0.54
128	14.79	33.68	200	10.57	33.64	25.81	220	0.67
157	12.40	33.20	250	8.91	33.82	26.23	180	0.77
206	10.39	33.67	300	8.05	33.92	26.44	160	0.86
247	9.09	33.81	400	6.95	34.03	26.68	137	1.01
369	7.24	34.00	500	6.31	34.14	26.86	120	1.14
488	6.37	34.12	600	5.80	34.30	27.05	102	1.26
616	5.72	34.32						

PAOLINA-T; October 5, 1954; 1645 GCT; 28°41'N, 123°40'W; sounding, 2000+ fm; wind, 360°, force 2; weather, overcast; sea, moderate; wire angle, 02°.

IIC (98.130)

0	19.28	33.66	0	19.28	33.66	23.95	397	0.00
10	19.27	33.58	10	19.27	33.58	23.89	402	0.04
26	19.27	33.61	20	19.27	33.60	23.90	402	0.08
41	19.29	33.68	30	19.26	33.64	23.94	398	0.12
57	19.23	33.64	50	19.29	33.66	23.95	397	0.20
72	17.19	33.68	75	17.07	33.70	24.52	342	0.29
87	16.80	33.87	100	16.70	33.93	24.78	318	0.38
102	16.67	33.93	150	13.50	33.56	25.20	278	0.53
126	15.80	33.87	200	9.70	33.58	25.91	210	0.65
156	12.82	33.54	250	8.61	33.86	26.31	172	0.75
205	9.57	33.60	300	7.88	34.02	26.54	150	0.83
265	8.37	33.94	400	7.00	34.21	26.82	124	0.97
369	7.21	34.15	500	6.39	34.31	26.98	109	1.10
489	6.45	34.31	600	5.74	34.34	27.09	98	1.21
617	5.65	34.34						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm^3/g	ΔD dyn. m

IID
(106.120)

PAOLINA-T; October 6, 1954; 1634 GCT; 27°37'N, 122°04'W; sounding, 2000+ fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 04°.

0	19.98	33.68	0	19.98	33.68	23.78	413	0.00
10	19.99	33.67	10	19.99	33.67	23.77	414	0.04
26	20.00	33.65	20	19.99	33.66	23.76	415	0.08
41	20.04	33.77	30	20.01	33.68	23.77	414	0.12
57	19.72	33.74	50	19.92	33.76	23.86	405	0.21
72	17.15	33.37	75	16.35	33.34	24.41	353	0.30
86	15.00	33.31	100	14.18	33.34	24.89	307	0.38
101	14.13	33.34	150	10.92	33.50	25.64	236	0.52
125	12.26	33.39	200	9.20	33.72	26.11	191	0.63
155	10.68	33.53	250	8.30	33.95	26.43	161	0.72
205	9.10	33.74	300	7.46	34.01	26.60	145	0.80
264	8.06	33.98	400	6.27	34.09	26.82	124	0.94
368	6.45	34.04	500	5.93	34.25	26.99	108	1.06
490	5.97	34.24	600	5.59	34.38	27.14	93	1.17
617	5.53	34.39						

12
(117.107)

PAOLINA-T; October 7, 1954; 1643 GCT; 26°33'N, 120°11'W; sounding, 2150 fm; wind, 360°, force 5; weather, overcast; sea, rough; wire angle, 12°.

0	20.42	33.61	0	20.42	33.61	23.61	429	0.00
10	20.42	33.64	10	20.42	33.64	23.64	426	0.04
25	20.43	33.64	20	20.42	33.64	23.64	426	0.09
45	19.42	33.51	30	20.44	33.62	23.62	428	0.13
65	15.75	33.22	50	18.36	33.42	24.00	392	0.21
81	14.81	33.23	75	15.18	33.23	24.59	336	0.30
101	13.69	33.22	100	13.78	33.22	24.88	308	0.38
120	12.12	33.23	150	10.42	33.43	25.68	232	0.52
150	10.42	33.43	200	9.90	33.94	26.16	186	0.63
181	10.03	33.79	250	9.56	34.24	26.45	159	0.72
237	9.62	34.20	300	9.15	34.35	26.61	144	0.79
306	9.10	34.35	400	8.01	34.39	26.81	125	0.93
422	7.75	34.39	500	6.90	34.38	26.97	110	1.06
564	6.31	34.37	600	6.08	34.38	27.07	100	1.17
707	5.35	34.42	700	5.38	34.42	27.19	89	1.27

13
(122^5.95)

PAOLINA-T; October 8, 1954; 1647 GCT; 25°35'N, 118°27'W; sounding, 1800 fm; wind, 010°, force 4; weather, overcast; sea, rough; wire angle, 20°.

0	20.49	33.61	0	20.49	33.61	23.59	431	0.00
10	20.51	33.59	10	20.51	33.59	23.57	433	0.04
25	20.51	33.63	20	20.51	33.63	23.60	430	0.09
44	19.26	33.53	30	20.51	33.61	23.59	431	0.13
64	16.27	33.30	50	18.32	33.46	24.04	388	0.21
78	14.87	33.18	75	15.13	33.19	24.57	338	0.30
97	13.59	33.25	100	13.40	33.26	24.99	298	0.38
116	12.06	33.27	150	10.70	33.70	25.84	217	0.51
142	10.92	33.60	200	10.47	34.24	26.30	173	0.61
168	10.54	33.90	250	9.82	34.40	26.53	151	0.70
217	10.41	34.38	300	8.98	34.40	26.67	138	0.77
282	9.24	34.40	400	7.69	34.35	26.83	123	0.91
392	7.77	34.35	500	6.68	34.31	26.94	112	1.03
527	6.50	34.30	600	6.06	34.36	27.06	101	1.15
667	5.77	34.42						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

PAOLINA-T; October 9, 1954; 1635 GCT; 25°30'N, 116°42'W; sounding, 2180+ fm; wind, 360°, force 5; weather, partly cloudy; sea, very rough; wire angle, 15°. 14 (127.75)

0	21.26	33.66	0	21.26	33.66	23.43	446	0.00
10	21.25	33.66	10	21.25	33.66	23.43	446	0.04
25	21.26	33.71	20	21.25	33.71	23.47	442	0.09
45	20.17	33.59	30	21.26	33.69	23.45	444	0.13
65	16.49	33.30	50	19.11	33.51	23.88	403	0.22
80	15.37	33.27	75	15.71	33.27	24.50	344	0.31
100	12.94	33.29	100	12.94	33.29	25.10	287	0.39
119	11.86	33.48	150	11.36	34.05	25.99	202	0.52
147	11.41	34.03	200	10.36	34.23	26.31	172	0.61
175	10.74	34.12	250	9.81	34.43	26.56	148	0.69
237	9.92	34.38	300	9.46	34.53	26.70	135	0.77
298	9.50	34.53	400	7.74	34.39	26.85	121	0.90
414	7.57	34.38	500	6.92	34.34	26.93	113	1.03
551	6.56	34.33	600	6.25	34.35	27.03	104	1.14
691	5.59	34.48	700	(5.53)	(34.50)	(27.24)	(84)	(1.24)

PAOLINA-T; October 10, 1954; 1645, 1704 GCT; 25°33'N, 114°52'W; sounding, 1900 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 27°, 26°. 15 (131.53)

0	22.07	33.73	0	22.07	33.73	23.26	462	0.00
9	22.08	33.71	10	22.08	33.71	23.24	464	0.05
			20	22.06	33.69	23.23	465	0.09
23	22.05	33.68	30	19.30	33.47	23.80	411	0.14
43	13.83	33.14	50	13.12	33.23	25.02	295	0.21
62	12.03	33.38	75	11.05	33.42	25.56	243	0.28
74	11.08	33.41	100	10.52	33.92	26.04	198	0.33
92	11.12	33.89	150	10.85	34.42	26.37	166	0.42
110	10.35	33.94	200	10.39	34.49	26.51	153	0.50
137	10.84	34.33	250	9.87	34.52	26.62	143	0.58
162	10.81	34.45	300	9.18	34.50	26.72	133	0.65
214	10.24	34.50	400	7.68	34.40	26.87	119	0.79
276	9.56	34.52	500	6.74	34.46	27.05	102	0.90
384	7.86	34.40	600	6.02	34.46	27.14	93	1.01
513	6.63	34.46						
653	5.70	34.45						

PAOLINA-T; October 11, 1954; 1635 GCT; 25°44'N, 113°34'W; sounding, 310 fm; wind, 320°, force 4; weather, clear; sea, very rough; wire angle, 08°. 16 (133.36)

0	21.59	33.64	0	21.59	33.64	23.32	456	0.00
10	21.57	33.64	10	21.57	33.64	23.33	456	0.05
15	21.57	33.59	20	21.56	33.61	23.30	459	0.09
20	21.56	33.61	30	17.70	33.48	24.20	373	0.13
25	18.98	33.41	50	14.46	33.17	24.70	325	0.20
30	17.70	33.48	75	11.36	33.30	25.41	258	0.28
35	16.36a)	33.25						
46	14.81	33.17						
56	13.80	33.15						
67	12.05	33.22						
82	11.05	33.36						

a) Mean value of 16.28 and 16.45°C.

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5409

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

17
(122.43)

PAOLINA-T; October 13, 1954; 1641 GCT; 27°27'N, 115°13'W; sounding, 1900 fm; wind, 010°, force 4; weather, cloudy; sea, moderate; wire angle, 03°.

0	19.05	33.57	0	19.05	33.57	23.94	398	0.00
10	17.85	33.46	10	17.85	33.46	24.15	378	0.04
25	16.87	33.43	20	17.29	33.44	24.27	366	0.08
41	13.74	33.34	30	15.80	33.41	24.59	336	0.11
57	11.85	33.52	50	12.50	33.44	25.30	268	0.17
72	11.49	33.84	75	11.47	33.87	25.83	218	0.23
87	11.42	33.94	100	11.34	34.18	26.10	192	0.28
102	11.32	34.19	150	10.38	34.37	26.41	163	0.38
127	10.39	34.22	200	9.90	34.42	26.54	150	0.46
157	10.37	34.39	250	8.99	34.40	26.67	138	0.53
205	9.83	34.42	300	8.40	34.39	26.76	129	0.60
265	8.75	34.39	400	7.47	34.42	26.92	114	0.73
368	7.78	34.41	500	6.60	34.44	27.05	102	0.84
488	6.69	34.44	600	5.75	34.38	27.12	95	0.95
617	5.65	34.37						

18
(117.57)

PAOLINA-T; October 14, 1954; 1632 GCT; 27°56'N, 116°46'W; sounding, 2050 fm; wind, 360°, force 3; weather, cloudy; sea, rough; wire angle, 08°.

0	18.99	33.44	0	18.99	33.44	23.85	406	0.00
10	18.94	33.41	10	18.94	33.41	23.84	407	0.04
25	18.94	33.36	20	18.93	33.38	23.82	409	0.08
41	18.11	33.24	30	18.92	33.32	23.78	413	0.12
56	15.35	33.16	50	16.18	33.19	24.34	360	0.20
71	14.36	33.09	75	14.22	33.08	24.68	327	0.29
85	13.87	33.07	100	13.13	33.21	25.00	297	0.36
100	13.13	33.21	150	9.70	33.48	25.84	217	0.50
124	11.21	33.19	200	8.78	33.91	26.32	171	0.59
153	9.56	33.52	250	8.66	34.17	26.54	150	0.68
202	8.73	33.94	300	8.55	34.31	26.67	138	0.75
262	8.65	34.22	400	7.99	34.43	26.85	121	0.89
365	8.30	34.43	500	7.00	34.42	26.98	109	1.01
486	7.07	34.42	600	6.38	34.50	27.13	94	1.12
612	6.30	34.51						

19
(111.68)

PAOLINA-T; October 15, 1954; 1625 GCT; 28°29'N, 118°06'W; sounding, 2500 fm; wind, 020°, force 5; weather, cloudy; sea, moderate; wire angle, 10°.

0	19.07	33.32	0	19.07	33.32	23.74	416	0.00
10	19.07	33.30	10	19.07	33.30	23.73	418	0.04
25	18.87	33.38	20	18.93	33.37	23.82	409	0.08
45	17.72	33.23	30	18.69	33.35	23.86	405	0.12
65	14.87	33.27	50	17.00	33.23	24.18	375	0.20
80	13.97	33.15	75	14.30	33.19	24.75	320	0.29
100	12.40	33.12	100	12.40	33.12	25.08	289	0.37
120	12.21	33.43	150	9.79	33.43	25.78	222	0.50
148	9.91	33.43	200	8.83	33.89	26.30	173	0.60
177	9.11	33.70	250	8.29	34.05	26.51	153	0.68
236	8.46	34.03	300	7.70	34.10	26.63	142	0.76
303	7.66	34.10	400	6.92	34.21	26.83	123	0.89
422	6.80	34.24	500	6.21	34.31	27.00	107	1.02
563	5.86	34.34	600	5.73	34.35	27.09	98	1.12
707	5.32	34.37	700	5.32	34.37	27.16	92	1.23

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

PAOLINA-T; October 16, 1954; 1626 GCT; 28°51'N, 119°38'W; sounding, 2100 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 20°. 20 (106.83)

0	18.85	33.37	0	18.85	33.37	23.84	407	0.00
10	18.86	33.33	10	18.86	33.33	23.80	411	0.04
25	18.86	33.36	20	18.86	33.35	23.82	409	0.08
39	18.83	33.38	30	18.85	33.37	23.84	407	0.12
53	17.70	33.25	50	18.35	33.29	23.90	402	0.20
67	14.04	33.09	75	13.38	33.08	24.85	311	0.29
81	12.81	33.08	100	10.88	33.12	25.36	262	0.37
94	11.07	33.07	150	9.33	33.82	26.16	186	0.48
116	10.34	33.33	200	8.81	33.99	26.38	166	0.57
143	9.41	33.78	250	8.36	34.21	26.62	143	0.65
186	8.96	33.94	300	7.92	34.32	26.77	128	0.72
239	8.45	34.18	400	7.31	34.39	26.92	114	0.84
333	7.69	34.37	500	6.64	34.41	27.02	105	0.96
445	7.05	34.39						
571	6.01	34.45						

PAOLINA-T; October 17, 1954; 1629 GCT; 29°22'N, 120°56'W; sounding, 2200 fm; wind, 020°, force 6; weather, partly cloudy; sea, moderate; wire angle, 05°. 21 (101.94)

0	18.91	33.30	0	18.91	33.30	23.77	414	0.00
10	18.89	33.31	10	18.89	33.31	23.78	413	0.04
26	18.91	33.32	20	18.89	33.32	23.79	412	0.08
41	18.83	33.36	30	18.91	33.33	23.79	412	0.12
58	16.79	33.05	50	18.20	33.18	23.85	406	0.21
73	15.01	33.11	75	14.73	33.11	24.60	335	0.30
87	13.62	33.11	100	12.76	33.02	24.93	303	0.38
103	12.56	33.01	150	9.86	33.32	25.69	231	0.52
127	11.16	33.09	200	8.50	33.78	26.26	177	0.62
157	9.56	33.40	250	7.71	33.97	26.53	151	0.70
205	8.37	33.82	300	7.38	34.06	26.65	140	0.78
265	7.57	34.00	400	6.91	34.18	26.81	125	0.92
372	7.08	34.16	500	5.92	34.22	26.97	110	1.04
492	5.97	34.22	600	5.22	34.32	27.13	94	1.15
618	5.11	34.34						

CREST; October 6, 1954; 2345, 2356 GCT; 34°54'N, 121°13'W; sounding, 300 fm; wind, 160°, force 2; weather, clear; sea, slight; wire angle, 07°, 09°. 77.55

0	15.3	33.30	0	15.3	33.30	24.62	333	0.00
6	14.88	33.25	10	14.76	33.24	24.69	326	0.03
			20	14.62	33.22	24.70	325	0.07
27	14.48	33.22	30	14.27	33.26	24.81	315	0.10
36	13.73	33.40	50	11.23	33.47	25.56	243	0.15
47	11.72	33.45	75	9.45	33.76	26.10	192	0.21
58	10.31	33.52	100	9.12	33.80	26.18	184	0.26
68	9.72	33.57	150	8.53	33.95	26.39	164	0.34
78	9.39	33.77	200	8.40	34.08	26.51	153	0.42
88	9.25	33.75	250	8.00	34.15	26.63	142	0.50
97	9.16	33.79	300	7.58	34.21	26.74	132	0.57
117	8.98	33.86	400	6.72	34.27	26.90	116	0.70
141	8.68	33.93	500	6.21	34.34	27.03	104	0.82
161	8.41	33.98						
200	8.40	34.08						
281	7.76	34.19						
386	6.82	34.26a)						
508	6.19	34.34a)						

a) Salinity samples at 386 and 508 meters appear to have been reversed; they are assumed to be listed in correct order.

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5410

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

80.55

CREST; October 8, 1954; 0020, 0040, 0059 GCT; 34°19'N, 120°48'W; sounding, 400 fm; wind, 240°, force 4; weather, clear; sea, rough; wire angle, 18°, 18°, 21°.

0	16.5	33.36	0	16.5	33.36	24.39	355	0.00
10	16.09	33.41	10	16.09	33.41	24.53	341	0.04
29	15.44	33.41	20	15.73	33.41	24.61	334	0.07
43	14.30	33.35	30	15.39	33.41	24.68	327	0.10
			50	13.33	33.21	24.96	300	0.16
53	12.81	33.17	75	10.40	33.47	25.71	229	0.23
64	11.76	33.40	100	9.51	33.70	26.04	198	0.28
			150	8.84	33.98	26.37	166	0.38
74	10.59	33.46	200	8.61	34.11	26.50	154	0.46
82	9.84	33.56	250	8.18	34.16	26.61	144	0.54
95	9.60	33.68	300	7.79	34.21	26.71	134	0.61
105	9.42	33.72	400	7.06	34.30	26.88	118	0.74
127	9.04	33.90	500	6.30	34.33	27.01	106	0.86
156	8.79	34.00	600	5.67	34.40	27.14	93	0.96
207	8.59	34.12						
270	8.01	34.17						
380	7.23	34.29						
508	6.26	34.33						
642	5.43	34.45						

80.70

CREST; October 8, 1954; 0957, 1025 GCT; 33°47'N, 121°48'W; sounding, 1900 fm; wind, 260°, force 4; weather, fog; sea, rough; wire angle, 32°, missing.

0	17.1	33.44	0	17.1	33.44	24.32	361	0.00
9	16.90	33.40	10	16.88	33.40	24.34	360	0.04
22	16.75	33.39	20	16.76	33.39	24.36	358	0.07
47	14.07	33.34	30	16.67	33.38	24.37	357	0.11
55	11.81	33.30	50	13.15	33.33	25.09	288	0.17
64	10.78	33.36	75	10.16	33.47	25.75	225	0.24
76	10.10	33.48	100	9.36	33.61	25.99	202	0.29
91	9.68	33.52	150	8.63	33.99	26.41	163	0.38
109	9.08	33.78	200	8.32	34.10	26.54	150	0.46
			250	7.91	34.20	26.68	137	0.54
137	8.71	33.94	300	7.50	34.28	26.80	126	0.60
175	8.52	34.06	400	6.67	34.33	26.96	110	0.73
232	8.04	34.16	500	5.91				
311	7.41	34.29	600	(5.34)				
430	6.40	34.34	700	(4.91)				
587	5.41	34.54u	800	(4.53)				
1074	3.71	34.52u	1000	3.91				

80.90

CREST; October 8, 1954; 2155 GCT; 33°09'N, 123°13'W; sounding, 2350 fm; wind, 330°, force 4; weather, clear; sea, rough; wire angle, 20°.

0	18.5	33.22	0	18.5	33.22	23.81	410	0.00
10	18.18	33.20	10	18.18	33.20	23.87	404	0.04
24	17.65	33.13	20	17.76	33.15	23.94	398	0.08
53	16.57	33.04	30	17.54	33.11	23.96	396	0.12
62	14.73	33.03	50	16.90	33.05	24.06	386	0.20
71	13.66	33.04	75	13.38	33.05	24.83	313	0.29
85	12.70	33.06	100	11.84	33.05	25.13	284	0.36
104	11.53	33.05						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

82.47

CREST; October 10, 1954; 0240 GCT; 34°15'N, 119°58'W; sounding, 300 fm; wind, 270°, force 1; weather, clear; sea, moderate; wire angle, 00°.

0	16.6	33.58	0	16.6	33.58	24.54	340	0.00
10	15.79	33.48	10	15.79	33.48	24.65	330	0.03
31	12.44	33.43	20	14.20	33.44	24.96	300	0.06
40	10.91	33.47	30	12.57	33.43	25.28	270	0.09
50	10.38	33.49	50	10.38	33.49	25.73	227	0.14
60	9.96	33.56	75	9.38	33.74	26.09	193	0.20
70	9.52	33.69	100	8.73	33.96	26.37	166	0.24
80	9.24	33.78	150	8.63	34.09	26.48	156	0.32
89	8.92	33.90	200	8.37	34.15	26.57	148	0.40
99	8.75	33.95	250	7.89	34.18	26.67	138	0.47
119	8.66	34.03	300	7.56	34.20	26.73	132	0.54
143	8.64	34.09	400	7.01	34.23	26.83	123	0.68
162	8.62	34.09	500	6.42	34.25	26.93	113	0.80
201	8.36	34.15						
282	7.66	34.19						
388	7.09	34.23						
509	6.39	34.25						

83.43

CREST; October 10, 1954; 0607 GCT; 34°05.5'N, 119°35.5'W; sounding, 60 fm; wind, 270°, force 3; weather, fog; sea, moderate; wire angle, 00°.

0	15.5	33.46	0	15.5	33.46	24.70	325	0.00
10	15.38	33.44	10	15.38	33.44	24.71	324	0.03
15	15.31	33.46	20	15.23	33.45	24.75	320	0.06
20	15.23	33.45	30	14.93	33.43	24.80	316	0.10
26	15.06	33.42	50	10.72	33.37	25.58	242	0.15
31	14.89	33.43	75	(9.94)	(33.53)	(25.84)	(217)	(0.21)
36	12.96	33.30						
47	10.88	33.35						
57	10.56	33.41						
72	10.03	33.51						

83.51

CREST; October 9, 1954; 2028 GCT; 33°51'N, 120°08'W; sounding, 92 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 05°.

0	16.2	33.36	0	16.2	33.36	24.46	348	0.00
10	15.50	33.30	10	15.50	33.30	24.57	338	0.03
15	15.02	33.26	20	14.93	33.27	24.68	327	0.07
20	14.93	33.27	30	13.76	33.29	24.94	302	0.10
26	14.82	33.28	50	10.94	33.39	25.55	244	0.15
31	13.47	33.29	75	9.80	33.56	25.88	213	0.21
36	12.03	33.32	100	9.19	33.80	26.17	185	0.26
45	11.26	33.40						
55	10.71	33.39						
64	10.15	33.48						
79	9.68	33.60						
97	9.24	33.79						
120	9.04	33.84						

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

83.60

CREST; October 9, 1954; 1403 GCT; 33°35'N, 120°47'W; sounding, 900 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 30°.

0	16.3	33.32	0	16.3	33.32	24.41	353	0.00
9	16.14	33.30	10	16.12	33.30	24.43	351	0.04
27	15.98	33.39	20	16.03	33.36	24.50	344	0.07
39	14.99	33.39	30	15.78	33.39	24.58	337	0.10
51	14.46	33.36	50	14.49	33.36	24.84	312	0.17
59	13.81	33.32	75	10.16	33.43	25.72	228	0.24
67	11.51	33.22	100	9.08	33.81	26.20	183	0.29
79	9.81	33.54	150	8.68	33.97	26.38	166	0.38
87	9.45	33.67	200	8.39	34.14	26.56	148	0.46
99	9.10	33.80	250	8.18	34.21	26.65	140	0.53
121	8.90	33.92	300	7.82	34.23	26.72	133	0.60
145	8.72	33.96	400	7.08	34.28	26.86	120	0.73
191	8.42	34.12	500	6.43	34.34	27.00	107	0.85
247	8.21	34.21	600	(5.87)	(34.37)	(27.09)	(98)	(0.96)
344	7.50	34.25						
464	6.66	34.33						
590	5.93	34.37						

85.39

CREST; October 10, 1954; 1032 GCT; 33°59'N, 119°05.5'W; sounding, 350 fm; wind, calm; weather, fog; sea, slight; wire angle, 00°.

0	17.0	33.45	0	17.0	33.45	24.35	359	0.00
10	14.88	33.39	10	14.88	33.39	24.78	318	0.03
30	11.92	33.29	20	13.72	33.33	24.98	299	0.06
40	11.48	33.28	30	11.92	33.29	25.30	268	0.09
50	10.70	33.35	50	10.70	33.35	25.57	242	0.14
60	10.36	33.44	75	9.89	33.53	25.84	217	0.20
70	10.01	33.49	100	9.42	33.83	26.16	186	0.25
80	9.78	33.61	150	9.06	33.95	26.31	172	0.34
90	9.56	33.62	200	8.70	34.09	26.47	157	0.43
100	9.42	33.83	250	8.16	34.16	26.61	144	0.50
121	9.32	33.80	300	7.72	34.22	26.72	133	0.58
146	9.11	33.94	400	7.13	34.33	26.89	117	0.71
165	8.92	33.98	500	6.20	34.35	27.04	103	0.82
206	8.65	34.10						
286	7.82	34.20						
391	7.21	34.32						
513	6.10	34.35						

85.45

CREST; October 10, 1954; 1510 GCT; 33°47'N, 119°31'W; sounding, 1000 fm; wind, calm; weather, fog; sea, moderate; wire angle, 10°.

0	16.6	33.53	0	16.6	33.53	24.50	344	0.00
10	15.54	33.57	10	15.54	33.57	24.77	319	0.03
30	13.04	-	20	14.36	33.58	25.04	293	0.06
41	11.90	33.58	30	13.04	33.58	25.31	267	0.09
50	10.20	33.61	50	10.20	33.61	25.85	216	0.14
60	9.69	33.68	75	9.41	33.78	26.12	190	0.19
69	9.47	33.75	100	8.98	33.91	26.29	174	0.24
79	9.36	33.79	150	8.50	34.02	26.45	159	0.32
88	9.18	33.80	200	8.24	34.19	26.62	143	0.40
98	9.01	33.90	250	7.93	34.24	26.71	134	0.47
122	8.70	33.99	300	7.62	34.28	26.79	127	0.54
150	8.50	34.02	400	6.91	34.32	26.92	114	0.66
197	8.27	34.19	500	6.22	34.34	27.02	105	0.78
255	7.90	34.24	600	(5.60)	(34.43)	(27.17)	(91)	(0.88)
358	7.24	34.31						
476	6.41	34.33						
599	5.62	34.43						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

85.55

CREST; October 10, 1954; 2103 GCT; 33°27'N, 120°12'W; sounding, 650 fm; wind, 310°, force 6; weather, cloudy; sea, very rough; wire angle, 20°.

0	15.5	33.46	0	15.5	33.46	24.70	325	0.00
10	15.39	33.52	10	15.39	33.52	24.77	319	0.03
29	15.20	33.55	20	15.30	33.55	24.81	315	0.06
43	12.37	33.53	30	15.16	33.55	24.84	312	0.10
57	10.76	33.55	50	11.50	33.54	25.57	242	0.15
67	9.96	33.63	75	9.71	33.69	26.00	202	0.21
77	9.64	33.70	100	9.14	33.78	26.16	186	0.26
92	9.26	33.82	150	8.60	34.10	26.50	154	0.34
101	9.13	33.78	200	8.17	34.18	26.63	142	0.42
115	8.84	33.91	250	7.93	34.24	26.71	134	0.49
143	8.68	34.10	300	7.71	34.25	26.75	130	0.56
170	8.36	34.10	400	6.88	34.24	26.86	120	0.69
227	8.06	34.28u	500	6.22	34.28	26.98	109	0.81
294	7.75	34.25	600	5.69	34.34	27.09	98	0.92
408	6.82	34.24	700	(5.23)	(34.35)	(27.16)	(92)	(1.02)
543	6.00	34.32						
684	5.31	34.35						

87.40

CREST; October 11, 1954; 1440 GCT; 33°39.5'N, 118°59'W; sounding, 470 fm; wind, 140°, force 2; weather, fog; sea, slight; wire angle, 09°.

0	15.4	33.47	0	15.4	33.47	24.73	322	0.00
10	15.27	33.48	10	15.27	33.48	24.76	320	0.03
30	11.88	33.45	20	13.11	33.47	25.21	277	0.06
44	10.18	33.56	30	11.88	33.45	25.43	256	0.09
55	9.89	33.59	50	10.00	33.58	25.86	215	0.14
65	9.56	33.68	75	9.18	33.73	26.12	190	0.19
75	9.18	33.73	100	8.85	33.87	26.28	175	0.23
84	9.09	33.77	150	8.56	34.04	26.46	158	0.32
98	8.90	33.86	200	8.23	34.14	26.59	146	0.40
107	8.77	33.92	250	7.82	34.22	26.71	134	0.47
131	8.63	33.97	300	7.44	34.26	26.80	126	0.53
161	8.49	34.06	400	6.79	34.29	26.91	115	0.66
213	8.12	34.16	500	6.27	34.34	27.02	105	0.78
275	7.64	34.25	600	5.80	34.38	27.11	96	0.88
386	6.88	34.28						
515	6.20	34.35						
652	5.57	34.39						

87.50

CREST; October 11, 1954; 0911 GCT; 33°20'N, 119°40'W; sounding, 42 fm; wind, 340°, force 3; weather, fog; sea, moderate; wire angle, 05°.

0	15.5	33.51	0	15.5	33.51	24.73	322	0.00
5	15.22	33.55	10	15.17	33.50	24.80	316	0.03
10	15.17	33.50	20	13.26	33.38	25.11	286	0.06
15	13.79	33.41	30	12.88	33.33	25.14	283	0.09
20	13.26	33.38	50	10.40	33.43	25.68	232	0.14
30	12.88	33.33						
40	11.20	33.29						
51	10.33	33.44						

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

87.60

CREST; October 11, 1954; 0259 GCT; 33°00'N, 120°21'W; sounding, 350 fm; wind, 310°, force 5; weather, fog; sea, rough; wire angle, 32°.

0	16.1	33.48	0	16.1	33.48	24.58	337	0.00
9	15.92	33.44	10	15.91	33.44	24.59	336	0.03
26	15.90	33.45	20	15.90	33.45	24.60	335	0.07
36	14.18	33.34	30	15.53	33.42	24.66	329	0.10
44	12.64	33.35	50	11.21	33.31	25.44	255	0.16
53	10.57	33.29	75	9.03	33.51	25.97	204	0.22
60	9.59	33.35	100	8.78	33.65	26.12	190	0.27
68	9.16	33.47	150	8.12	34.03	26.52	152	0.35
76	9.01	33.51	200	7.53	34.07	26.63	142	0.43
84	8.88	33.58	250	7.06	34.08	26.71	134	0.50
99	8.79	33.64	300	6.67	34.12	26.79	127	0.57
120	8.56	33.93	400	6.19	34.24	26.95	111	0.69
135	8.35	33.96						
168	7.88	34.07						
234	7.22	34.07						
331	6.48	34.15						
447	6.02	34.29						

90.28

CREST; October 12, 1954; 2003 GCT; 33°28.5'N, 117°45.5'W; sounding, 75 fm; wind, 060°, force 1; weather, fog; sea, slight; wire angle, 00°.

0	16.7	33.38	0	16.7	33.38	24.36	358	0.00
10	14.24	33.31	10	14.24	33.31	24.85	311	0.03
15	13.12	33.32	20	12.84	33.30	25.13	284	0.06
20	12.84	33.30	30	11.79	33.31	25.34	264	0.09
25	12.27	33.32	50	10.33	33.44	25.70	230	0.14
30	11.79	33.31	75	9.75	33.75	26.04	198	0.19
35	11.32	33.36	100	9.62	33.85	26.14	188	0.24
45	10.51	33.40						
55	10.20	33.50						
66	9.84	33.68						
81	9.72	33.78						
102	9.60	33.86						
127	9.50	33.94						

90.37

CREST; October 13, 1954; 0115 GCT; 33°10.5'N, 118°23'W; sounding, 600 fm; wind, calm; weather, fog; sea, slight; wire angle, 00°.

0	17.9	33.46	0	17.9	33.46	24.14	379	0.00
10	17.15	33.39	10	17.15	33.39	24.27	366	0.04
30	11.61	33.30	20	14.30	33.34	24.86	310	0.07
40	11.00	33.38	30	11.61	33.30	25.36	262	0.10
52	10.46	33.40	50	10.53	33.40	25.63	237	0.15
61	10.23	33.46	75	9.72	33.60	25.93	208	0.21
71	9.76	33.56	100	9.47	33.81	26.13	189	0.26
81	9.67	33.65	150	9.11	34.01	26.35	168	0.35
91	9.53	33.75	200	8.77	34.13	26.49	155	0.43
101	9.46	33.81	250	8.47	34.17	26.57	148	0.51
156	9.06	34.03	300	8.22	34.23	26.66	139	0.58
205	8.72	34.14	400	7.30	34.27	26.82	124	0.72
247	8.46	34.16	500	6.55	34.32	26.97	110	0.84
265	8.50	34.22	600	5.93	34.34	27.06	101	0.95
370	7.54	34.25						
492	6.61	34.32						
618	5.82	34.34						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; October 13, 1954; 0823 GCT; 32°44'N, 119°16'W; sounding, 100 fm; wind, 300°, force 1; weather, fog; sea, slight; wire angle, 00°. 90.50

0	16.0	33.49	0	16.0	33.49	24.61	334	0.00
10	16.00	33.48	10	16.00	33.48	24.60	335	0.03
20	15.94	33.51	20	15.94	33.51	24.64	331	0.07
30	15.56	33.48	30	15.56	33.48	24.70	325	0.10
41	14.71	33.39	50	13.38	33.43	25.14	283	0.16
51	13.12	33.43	75	(10.50)	(33.47)	(25.69)	(231)	(0.23)
61	11.74	33.39						
72	10.76	33.45						

CREST; October 13, 1954; 1842 GCT; 32°05'N, 120°38'W; sounding, 2150 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 25°. 90.70

0	17.0	33.35	0	17.0	33.35	24.27	366	0.00
14	16.78	33.36	10	16.82	33.36	24.32	361	0.04
42	14.82	33.20	20	16.69	33.36	24.35	359	0.07
51	13.58	33.18	30	16.54	33.33	24.36	358	0.11
60	12.83	33.18	50	13.64	33.18	24.88	308	0.18
74	12.10	33.18	75	11.72	33.18	25.25	273	0.25
91	10.76	33.25	100	10.28	33.30	25.60	240	0.31
113	9.60	33.37	150	8.67	33.69	26.17	185	0.42
138	8.84	33.58	200	7.92	34.02	26.54	150	0.51
183	8.32	33.95	250	7.59	34.10	26.65	140	0.58
206	7.87	34.04	300	7.16	34.18	26.77	128	0.65
254	7.56	34.11	400	6.55	34.27	26.93	113	0.78
349	6.82	34.23	500	6.01	34.35	27.06	101	0.89
478	6.17	34.33	600	5.45	34.42	27.18	90	0.99
645	5.22	34.44	700	5.00	34.45	27.26	82	1.08
862	4.42	34.48	800	4.63	34.47	27.32	76	1.17
1156	3.50	34.56	1000	3.98	34.52	27.43	66	1.33

CREST; October 14, 1954; 1652 GCT; 32°50'N, 117°31'W; sounding, 470 fm; wind, 090°, force 2; weather, fog; sea, slight; wire angle, 05°. 93.30

0	18.3	33.39	0	18.3	33.39	23.99	393	0.00
10	18.24	33.42	10	18.24	33.42	24.03	389	0.04
30	13.83	33.19	20	17.85	33.37	24.08	384	0.08
41	11.93	33.22	30	13.83	33.19	24.85	311	0.11
51	11.00	33.25	50	11.08	33.25	25.42	257	0.17
61	10.32	33.40	75	9.79	33.56	25.88	213	0.23
71	9.82	33.48	100	9.53	33.81	26.12	190	0.28
81	9.78	33.67	150	9.55	34.11	26.35	168	0.37
91	9.51	33.72	200	9.35	34.19	26.45	159	0.45
101	9.53	33.82	250	8.80	34.16	26.51	153	0.53
124	9.69	34.02	300	8.29	34.19	26.62	143	0.61
155	9.54	34.12	400	7.43	34.28	26.81	125	0.75
204	9.31	34.19	500	6.60	34.32	26.96	110	0.87
263	8.65	34.16	600	5.69	34.39	27.13	94	0.98
367	7.70	34.26						
486	6.73	34.31						
613	5.58	34.40						

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

93.50

CREST; October 14, 1954; 0624 GCT; 32°10'N, 118°53'W; sounding, 800 fm; wind, 290°, force 2; weather, overcast; sea, moderate; wire angle, 12°.

0	17.5	33.43	0	17.5	33.43	24.21	372	0.00
10	17.42	33.49u	10	17.42	33.42	24.22	371	0.04
31	17.41	33.39	20	17.40	33.43	24.24	369	0.07
46	16.30	33.34	30	17.41	33.39	24.20	373	0.11
56	13.78	33.27	50	15.15	33.31	24.66	329	0.18
65	12.97	33.28	75	12.29	33.18	25.14	283	0.26
75	12.29	33.18	100	9.70	33.49	25.84	217	0.32
84	11.56	33.22	150	8.49	33.89	26.35	168	0.42
99	9.83	33.47	200	8.13	34.08	26.55	149	0.50
108	9.24	33.60	250	7.84	34.18	26.67	138	0.57
132	8.68	33.78	300	7.52	34.21	26.74	131	0.64
162	8.40	33.94	400	6.67	34.26	26.90	116	0.77
215	8.03	34.12	500	5.91	34.33	27.06	101	0.89
278	7.68	34.20	600	5.55	34.37	27.13	94	0.99
391	6.73	34.25						
519	5.82	34.34						
655	5.42	34.39						

97.40

CREST; October 15, 1954; 0436 GCT; 31°55.5'N, 117°50'W; sounding, 690 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	18.2	33.41	0	18.2	33.41	24.03	389	0.00
10	17.93	33.39	10	17.93	33.39	24.08	384	0.04
30	16.62	33.32	20	17.49	33.35	24.15	378	0.08
40	15.06	33.32	30	16.62	33.32	24.34	360	0.11
50	12.37	33.27	50	12.37	33.27	25.20	278	0.18
61	11.39	33.24	75	10.69	33.37	25.58	242	0.24
71	10.87	33.35	100	9.79	33.62	25.93	208	0.30
81	10.46	33.40	150	9.12	33.93	26.28	175	0.40
90	10.05	33.55	200	9.11	34.23	26.52	152	0.48
99	9.81	33.61	250	8.18	34.21	26.65	140	0.56
124	9.70	33.85	300	7.72	34.25	26.75	130	0.62
153	9.12	33.94	400	7.02	34.33	26.91	115	0.75
202	9.11	34.23	500	6.05	34.35	27.05	102	0.87
261	8.01	34.21	600	5.71	34.41	27.14	93	0.97
364	7.32	34.31						
485	6.16	34.35						
612	5.66	34.42						

100.29

CREST; October 17, 1954; 0912 GCT; 31°42'N, 116°43.5'W; sounding, 50 fm; wind, 020°, force 2; weather, fog; sea, missing; wire angle, 04°.

0	13.8	33.30	0	13.8	33.30	24.94	302	0.00
5	14.00	33.30	10	13.17	33.29	25.06	291	0.03
10	13.17	33.29	20	11.14	33.21	25.38	260	0.06
15	12.61	33.30	30	10.94	33.32	25.50	249	0.08
20	11.14	33.21	50	10.32	33.44	25.70	230	0.13
25	11.08	33.31	75	(10.07)	(33.67)	(25.92)	(209)	(0.19)
30	10.94	33.32						
35	10.55	33.40						
45	10.35	33.42						
56	10.30	33.47						
71	10.16	33.63						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; October 16, 1954; 2223 GCT; 31°02'N, 118°05'W; sounding, 900 fm; wind, 330°, force 3; weather, partly cloudy; sea, moderate; wire angle, 23°. 100.50

0	18.3	33.49	0	18.3	33.49	24.06	386	0.00
10	18.17	33.48	10	18.17	33.48	24.09	383	0.04
24	18.07	33.49	20	18.08	33.49	24.12	380	0.08
51	14.42	33.18	30	18.03	33.49	24.13	380	0.11
61	13.24	33.23	50	14.58	33.18	24.68	327	0.19
70	12.20	33.18	75	11.83	33.18	25.23	275	0.26
84	11.08	33.21	100	9.74	33.34	25.72	228	0.32
102	9.66	33.36	150	8.83	33.76	26.20	183	0.43
124	9.14	33.58	200	8.19	34.00	26.48	156	0.51
152	8.80	33.78	250	7.81	34.10	26.62	143	0.59
198	8.21	33.99	300	7.33	34.15	26.72	133	0.66
267	7.68	34.12	400	6.56	34.22	26.89	117	0.79
364	6.82	34.19	500	5.93	34.29	27.02	105	0.91
492	6.01	34.28	600	5.35	34.35	27.14	93	1.02
668	5.07	34.38	700	4.91	34.40	27.23	85	1.11
890	4.26	34.46	800	4.53	34.43	27.30	78	1.20
1191	3.52	34.53	1000	3.97	34.49	27.41	68	1.37

CREST; October 16, 1954; 1225 GCT; 30°22'N, 119°28'W; sounding, 2050 fm; wind, 310°, force 3; weather, cloudy; sea, moderate; wire angle, 07°. 100.70

0	18.0	33.49	0	18.0	33.49	24.14	379	0.00
10	17.89	33.48	10	17.89	33.48	24.16	377	0.04
26	17.48	33.48	20	17.66	33.48	24.21	372	0.08
51	14.67	33.22	30	17.02	33.45	24.34	360	0.11
61	13.51	33.12	50	14.75	33.23	24.68	327	0.18
71	12.35	33.12	75	12.08	33.13	25.14	283	0.26
81	11.71	33.15	100	10.55	33.38	25.61	239	0.32
100	10.55	33.38	150	8.97	33.74	26.16	186	0.43
124	9.45	33.51	200	8.13	33.93	26.44	160	0.52
155	8.87	33.77	250	7.68	34.04	26.59	146	0.60
204	8.09	33.94	300	7.11	34.10	26.72	133	0.67
273	7.46	34.08	400	6.12	34.16	26.90	116	0.80
377	6.23	34.13	500	5.73	34.29	27.05	102	0.91
505	5.71	34.29	600	5.18	34.33	27.15	92	1.02
689	4.80	34.37	700	(4.76)	(34.37)	(27.23)	(85)	(1.12)

CREST; October 16, 1954; 0243 GCT; 29°41'N, 120°48'W; sounding, 2180 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 05°. 100.90

0	19.1	33.50	0	19.1	33.50	23.87	404	0.00
10	19.12	33.43	10	19.12	33.43	23.81	410	0.04
25	19.16	33.48	20	19.13	33.46	23.83	408	0.08
55	17.46	33.44	30	19.14	33.48	23.85	407	0.12
65	16.03	33.33	50	18.38	33.46	24.02	390	0.20
74	15.34	33.33	75	15.30	33.33	24.64	331	0.29
89	14.55	33.36	100	14.04	33.34	24.92	304	0.37
110	13.44	33.30	150	10.56	33.28	25.54	245	0.51
134	11.48	33.21	200	9.08	33.80	26.19	184	0.62
164	9.90	33.39	250	8.30	33.95	26.43	161	0.71
217	8.79	33.86	300	7.61	34.04	26.60	145	0.79
295	7.69	34.04	400	6.21	34.10	26.84	122	0.93
403	6.18	34.10	500	5.53	34.21	27.01	106	1.05
548	5.31	34.26	600	5.11	34.31	27.14	93	1.15
742	4.68	34.42	700	4.80	34.40	27.24	84	1.25
983	3.94	34.47	800	4.50	34.43	27.30	78	1.34
1303	3.26	34.54	1000	3.89	34.47	27.40	69	1.50

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

103.30

HORIZON; October 24, 1954; 1458 GCT; 31°05.5'N, 116°24'W; sounding, 35 fm; wind, 200°, force 2; weather, cloudy; sea, rough; wire angle, 00°.

0	14.95	33.23	0	14.95	33.23	24.64	331	0.00
10	13.86	33.24	10	13.86	33.24	24.88	308	0.03
20	12.53	33.26	20	12.53	33.26	26.16	281	0.06
30	11.31	33.27	30	11.31	33.27	25.39	260	0.09
40	11.30	33.33	50	11.32	33.39	25.44	255	0.11
51	11.32	33.40						

103.40

HORIZON; October 24, 1954; 2003 GCT; 30°45.5'N, 117°05'W; sounding, 970 fm; wind, 230°, force 3; weather, partly cloudy; sea, very rough; wire angle, 15°.

0	18.59	33.49	0	18.59	33.49	23.99	393	0.00
10	18.52	33.48	10	18.52	33.48	24.00	392	0.04
30	18.38	33.45	20	18.42	33.47	24.02	390	0.08
39	16.70	33.34	30	18.38	33.45	24.01	391	0.12
48	14.80	33.20	50	14.58	33.17	24.67	328	0.19
58	13.53	33.09	75	12.49	33.25	25.16	281	0.27
67	12.88	33.14	100	9.67	33.25	25.66	234	0.33
77	12.38	33.25	150	8.88	33.75	26.18	184	0.44
86	11.12	33.16	200	8.01	33.98	26.49	155	0.52
95	9.84	33.20	250	7.72	34.11	26.64	141	0.60
118	9.35	33.45	300	7.08	34.12	26.74	131	0.67
146	8.96	33.72	400	6.60	34.23	26.89	117	0.80
192	8.08	33.95	500	6.28	34.35	27.02	105	0.92
248	7.73	34.11	600	(5.51)	(34.37)	(27.14)	(93)	(1.02)
348	6.68	34.13						
464	6.48	34.34						
586	5.61	34.37						

107.35

HORIZON; October 24, 1954; 0808 GCT; 30°22'N, 116°23.5'W; sounding, 950 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 10°.

0	17.33	33.26	0	17.33	33.26	24.12	380	0.00
10	17.34	33.23	10	17.34	33.23	24.10	382	0.04
30	16.09	33.22	20	16.91	33.22	24.19	374	0.08
40	15.16	33.23	30	16.09	33.22	24.38	356	0.11
50	14.23	33.19	50	14.23	33.19	24.76	320	0.18
59	12.44	33.18	75	10.91	33.23	25.44	255	0.25
68	11.20	33.15	100	9.89	33.43	25.77	223	0.31
78	10.78	33.28	150	9.01	33.95	26.32	171	0.41
88	10.05	33.33	200	8.67	34.05	26.45	159	0.50
98	9.90	33.41	250	8.46	34.14	26.55	149	0.58
121	9.74	33.68	300	8.25	34.33	26.73	132	0.65
151	9.00	33.95	400	7.56	34.41	26.90	116	0.78
198	8.68	34.05	500	6.40	34.40	27.05	102	0.90
257	8.43	34.15	600	5.67	34.42	27.16	92	1.00
359	7.96	34.41						
476	6.62	34.40						
602	5.66	34.42						

110.33

HORIZON; October 23, 1954; 0635 GCT; 29°51.5'N, 115°52.5'W; sounding, 52 fm; wind, 040°, force 3; weather, overcast; sea, slight; wire angle, 08°.

0	13.92	33.18	0	13.92	33.18	24.82	314	0.00
10	13.83	33.12	10	13.83	33.12	24.79	317	0.03
20	13.25	33.18	20	13.25	33.18	24.96	300	0.06
30	12.22	-	30	12.22	33.26	25.22	276	0.09
40	11.78	33.32	50	11.65	33.36	25.40	259	0.14
50	11.65	33.36	75	11.03	33.50	25.62	238	0.21
60	11.48	33.34						
70	11.19	33.47						
80	10.89	33.53						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} T^3/g	dyn. m

HORIZON; October 23, 1954; 1037 GCT; 29°37'N, 116°19.5'W; sounding, 1200 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 12°. 110.40

0	18.06	33.30	0	18.06	33.30	23.98	395	0.00
10	18.06	33.32	10	18.06	33.32	23.99	393	0.04
25	17.32	33.24	20	18.00	33.30	23.99	393	0.08
55	11.35	33.29	30	15.50	33.24	24.53	341	0.12
65	10.90	33.36	50	11.76	33.27	25.31	267	0.18
76	10.44	33.51	75	10.48	33.50	25.72	228	0.24
89	9.96	33.66	100	9.83	33.70	25.99	202	0.29
107	9.76	33.72	150	9.02	33.98	26.34	169	0.39
132	9.25	33.93	200	8.47	34.12	26.53	151	0.47
160	8.92	34.00	250	8.44	34.32	26.69	136	0.54
212	8.44	34.16	300	8.42	34.39	26.75	130	0.61
287	8.44	34.39	400	7.41	34.40	26.91	115	0.74
392	7.48	34.40	500	6.35	34.40	27.06	101	0.86
528	6.09	34.40	600	5.54	34.41	27.17	91	0.96
715	4.96	34.43	700	5.01	34.43	27.24	84	1.05
948	4.18	34.51	800	4.62	34.46	27.31	77	1.14
1255	3.34	34.57	1000	4.02	34.52	27.42	67	1.30

HORIZON; October 23, 1954; 2004 GCT; 29°00'N, 117°38'W; sounding, 2000 fm; wind, 270°, force 3; weather, overcast; sea, rough; wire angle, 20°. 110.60

0	19.53	33.41	0	19.53	33.41	23.69	422	0.00
10	19.48	33.40	10	19.48	33.40	23.70	421	0.04
25	19.28	33.43	20	19.33	33.43	23.76	415	0.08
48	18.06	33.25	30	19.18	33.41	23.78	413	0.12
57	16.64	33.18	50	17.80	33.22	23.98	394	0.21
66	15.66	33.20	75	14.82	33.18	24.63	332	0.30
75	14.82	33.18	100	13.21	33.29	25.05	292	0.38
93	13.74	33.31	150	9.70	33.51	25.86	215	0.50
116	11.70	33.23	200	8.60	33.96	26.39	164	0.60
143	10.02	33.41	250	8.25	34.11	26.56	148	0.68
187	8.74	33.88	300	7.83	34.18	26.68	137	0.76
249	8.28	34.11	400	6.90	34.28	26.89	117	0.89
343	7.48	34.22	500	6.21	34.37	27.05	102	1.00
461	6.45	34.35	600	5.69	34.41	27.15	92	1.11
629	5.54	34.42	700	5.20	34.49	27.27	81	1.20
837	4.58	34.55	800	4.72	34.54	27.36	73	1.29
1131	3.66	34.56	1000	4.01	34.56	27.46	63	1.44

HORIZON; October 22, 1954; 2315 GCT; 29°13'N, 115°39'W; sounding, 745 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 33°. 113.35

0	17.78	33.47	0	17.78	33.47	24.18	375	0.00
10	17.76	-	10	17.76	33.47	24.18	375	0.04
26	14.63	33.28	20	16.01	33.37	24.51	343	0.07
39	13.00	33.12	30	14.00	33.20	24.82	314	0.11
46	12.56	33.13	50	12.00	33.15	25.17	280	0.17
55	11.31	33.18	75	10.58	33.39	25.62	238	0.23
63	10.72	33.23	100	10.38	33.67	25.87	214	0.29
71	10.56	33.27	150	9.94	34.04	26.23	180	0.39
84	10.74	33.63	200	9.85	34.29	26.44	160	0.47
91	10.56	33.62	250	9.20	34.35	26.60	145	0.55
111	10.26	33.78	300	8.72	34.39	26.71	134	0.62
135	9.90	33.93	400	7.49	34.38	26.88	118	0.76
180	10.01	34.26	500	6.50	34.41	27.04	103	0.87
235	9.38	34.34						
333	8.50	34.39						
456	6.88	34.38						
589	5.94	34.52						

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

117.30

HORIZON; October 22, 1954; 1052 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 320°, force 4; weather, overcast; sea, slight; wire angle, 05°.

0	18.68	33.37	0	18.68	33.37	23.88	404	0.00
10	18.36	33.36	10	18.36	33.36	23.95	397	0.04
20	15.80	33.26	20	15.80	33.26	24.48	346	0.08
30	14.39	33.24	30	14.39	33.24	24.77	319	0.11
40	12.22	33.26	50	11.52	33.38	25.44	255	0.17
50	11.52	33.38	75	10.70	33.66	25.81	220	0.23
60	11.17	33.54						
70	10.81	33.62						
80	10.64	33.70						
90	10.63	33.92						

117.40

HORIZON; October 22, 1954; 1543 GCT; 28°29'N, 115°35.5'W; sounding, 560 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 24°.

0	17.80	33.35	0	17.80	33.35	24.08	384	0.00
10	17.78	33.41	10	17.78	33.41	24.13	380	0.04
28	15.49	33.38	20	16.70	33.40	24.38	356	0.08
38	13.82	33.32	30	15.34	33.37	24.66	329	0.11
47	13.02	33.32	50	12.72	33.35	25.19	279	0.17
56	12.24	33.43	75	11.77	33.56	25.53	246	0.24
65	11.78	33.41	100	11.00	33.99	26.01	201	0.29
75	11.77	33.56	150	11.45	34.53	26.35	168	0.39
113	10.86	34.12	200	11.00	34.54	26.44	160	0.47
137	11.46	34.48	250	10.02	34.48	26.56	148	0.55
179	11.33	34.57	300	9.26	34.49	26.70	135	0.62
229	10.38	34.48	400	7.98	34.46	26.87	119	0.76
319	9.00	34.49	500	6.76	34.45	27.04	103	0.88
429	7.63	34.45						
548	6.04	34.46						

120.25

HORIZON; October 22, 1954; 0426 GCT; 28°21.5'N, 114°21'W; sounding, 30 fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 06°.

0	18.46	33.32	0	18.46	33.32	23.89	402	0.00
10	18.46	33.35	10	18.46	33.35	23.92	400	0.04
20	14.98	33.26	20	14.98	33.26	24.66	329	0.08
30	13.21	33.25	30	13.21	33.25	25.02	295	0.11
40	12.26	33.25	50	11.62	33.38	25.42	257	0.16
50	11.62	33.38						

120.35

HORIZON; October 21, 1954; 2341 GCT; 28°03'N, 114°54'W; sounding, 45 fm; wind, 360°, force 3; weather, cloudy; sea, slight; wire angle, 00°.

0	18.45	33.33	0	18.45	33.33	23.90	401	0.00
10	17.10	33.22	10	17.10	33.22	24.15	378	0.04
20	16.73	33.31	20	16.73	33.31	24.30	363	0.08
30	15.18	33.20	30	15.18	33.20	24.57	338	0.11
40	14.32	33.30	50	12.81	33.37	25.19	279	0.17
50	12.81	33.37	75	(10.78)	(33.53)	(25.69)	(231)	(0.24)
60	11.99	33.40						
71	11.14	33.48						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

HORIZON, October 21, 1954; 0444 GCT; 27°33'N, 115°53'W; sounding, 2000 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 04°. 120.50

0	19.71	33.65u	0	19.71	(33.50)	(23.83)	(409)	(0.00)
10	19.72	33.51	10	19.72	33.51	23.72	419	0.04
25	18.67	33.38	20	19.13	33.41	23.80	412	0.08
55	13.33	33.65	30	17.82	33.41	24.12	380	0.12
65	12.36	33.58	50	13.90	33.64	25.18	280	0.19
76	11.23	33.47	75	11.23	33.47	25.56	243	0.26
91	11.32	33.71	100	10.80	33.66	25.79	222	0.31
110	9.68	33.61	150	9.43	34.00	26.29	174	0.41
134	9.31	33.86	200	9.42	34.33	26.55	149	0.50
163	9.54	34.09	250	9.10	34.43	26.68	137	0.57
217	9.33	34.40	300	8.69	34.44	26.75	130	0.64
294	8.75	34.43	400	7.54	34.39	26.88	118	0.77
402	7.51	34.39	500	6.51	34.38	27.02	105	0.89
542	6.21	34.38	600	5.82	34.39	27.12	95	1.00
732	5.12	34.42	700	5.26	34.41	27.20	88	1.10
968	4.17	34.52	800	4.80	34.45	27.28	80	1.19
1277	3.42	34.55	1000	4.09	34.53	27.43	66	1.35

HORIZON; October 20, 1954; 1829 GCT; 26°46.5'N, 117°06.5'W; sounding, 2200 fm; wind, 340°, force 4; weather, overcast; sea, rough; wire angle, 21°. 120.70

0	19.51	33.51	0	19.51	33.51	23.77	414	0.00
10	19.57	33.55	10	19.57	33.55	23.79	412	0.04
22	19.54	33.54	20	19.55	33.54	23.79	413	0.08
53	17.83	33.30	30	19.30	33.51	23.83	408	0.12
62	15.75	33.40	50	18.21	33.30	23.94	398	0.20
71	13.89	33.40	75	13.50	33.40	25.07	290	0.29
85	12.83	33.38	100	11.13	33.35	25.49	250	0.36
103	10.76	33.35	150	9.62	33.93	26.20	183	0.47
127	9.48	33.59	200	9.54	34.28	26.49	155	0.55
154	9.64	33.97	250	9.09	34.38	26.64	141	0.63
203	9.52	34.29	300	8.54	34.41	26.75	130	0.70
274	8.84	34.40	400	7.56	34.42	26.90	116	0.83
374	7.82	34.42	500	6.68	34.42	27.03	104	0.95
507	6.62	34.42	600	5.97	34.46	27.18	90	1.05
686	5.46	34.57u	700	5.36	34.51	27.31	77	1.15
910	4.40	34.57	800	4.83	34.57	27.38	71	1.23
1205	3.60	34.60	1000	4.11	34.58	27.46	63	1.39

HORIZON; October 20, 1954; 0843 GCT; 26°15'N, 118°27'W; sounding, 2230 fm; wind, 360°, force 6; weather, clear; sea, rough; wire angle, 22°. 120.90

0	20.59	33.67	0	20.59	33.67	23.61	429	0.00
10	20.60	33.64	10	20.60	33.64	23.59	431	0.04
24	20.50	33.64	20	20.54	33.64	23.60	430	0.09
51	17.03	33.29	30	19.88	33.60	23.75	416	0.13
60	16.34	33.29	50	17.12	33.29	24.20	373	0.21
69	15.45	33.27	75	15.03	33.26	24.65	330	0.30
83	14.51	33.25	100	13.58	33.25	24.94	302	0.38
100	13.58	33.25	150	10.44	33.58	25.79	222	0.51
124	11.91	33.28	200	9.64	34.14	26.36	167	0.61
150	10.44	33.58	250	9.32	34.30	26.54	150	0.69
198	9.67	34.14	300	8.90	34.40	26.68	137	0.76
269	9.22	34.34	400	7.62	34.43	26.90	116	0.90
368	7.98	34.43	500	6.63	34.43	27.04	103	1.01
498	6.64	34.43	600	5.95	34.48	27.17	91	1.12
676	5.51	34.51	700	5.36	34.52	27.27	81	1.21
898	4.32	34.54	800	4.78	34.53	27.35	74	1.30
1198	3.50	34.58	1000	3.95	34.56	27.46	63	1.45

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m
123.40	HORIZON; October 19, 1954; 1022 GCT; 27°18'N, 114°52'W; sounding, 285 fm; wind, 320°, force 3; weather, fog; sea, slight; wire angle, 18°.							
0	18.91	33.65	0	18.91	33.65	24.03	389	0.00
10	18.62	33.58	10	18.62	33.58	24.05	387	0.04
20	17.63	33.67	20	17.63	33.67	24.36	358	0.08
30	16.91	33.59	30	16.91	33.59	24.47	347	0.11
39	13.96	33.24	50	13.81	33.74	25.27	271	0.17
48	13.85	33.71	75	12.36	34.11	25.85	216	0.23
63	13.02	33.89	100	12.32	34.21	25.93	208	0.29
77	12.34	34.12	150	11.95	34.46	26.20	183	0.39
96	12.33	34.19	200	10.58	34.43	26.43	161	0.48
120	12.24	34.30	250	10.58	34.60	26.56	148	0.56
157	11.80	34.47	300	9.70	34.56	26.68	137	0.63
196	10.58	34.43	400	(8.00)	(34.45)	(26.86)	(120)	(0.76)
244	10.60	34.60						
318	9.36	34.54						
397	8.06	34.45						
123.55	HORIZON; October 19, 1954; 1733, 1753 GCT; 26°47'N, 115°47.5'W; sounding, 2150 fm; wind, 330°, force 3; weather, clear; sea, rough; wire angle, 12°, 16°.							
0	20.48	33.66	0	20.48	33.66			
10	20.44	33.63	10	20.44	33.63	23.62	428	0.04
30	19.83	33.49	20	20.19	33.54	23.62	428	0.08
39	19.38	33.45	30	19.83	33.49	23.68	423	0.13
49	17.04	33.29	50	16.60	33.29	24.32	361	0.21
58	14.21	33.28	75	12.22	33.31	25.26	272	0.29
68	12.88	33.30	100	10.74	33.64	25.78	222	0.35
77	12.08	33.31	150	10.05	34.12	26.28	175	0.45
87	11.59	33.43	200	9.72	34.29	26.47	157	0.53
96	11.06	33.59	250	8.94	34.33	26.62	143	0.61
120	9.99	33.82	300	8.58	34.43	26.76	129	0.68
149	10.06	34.12	400	7.89	34.51	26.93	113	0.81
197	9.74	34.29	500	6.80	34.46	27.04	103	0.92
256	8.88	34.34	600	(5.91)	(34.44)	(27.14)	(93)	(1.03)
359	8.26	34.52						
477	7.04	34.46						
598	5.96	34.44						
127.34	HORIZON; October 19, 1954; 0423 GCT; 26°56'N, 114°06'W; sounding, 47 fm; wind, 320°, force 3; weather, clear; sea, slight; wire angle, 07°.							
0	20.71	33.78	0	20.71	33.78	23.67	424	0.00
10	19.50	33.69	10	19.50	33.69	23.91	401	0.04
20	18.95	33.75	20	18.95	33.75	24.10	382	0.08
30	14.96	33.23	30	14.96	33.23	24.64	331	0.12
40	13.74	33.33	50	12.81	33.54	25.32	266	0.18
50	12.81	33.54	75	(13.22)	(33.95)	(25.56)	(243)	(0.24)
60	13.16	33.89						
70	13.20	33.94						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

HORIZON; October 18, 1954; 1957 GCT; 26°22.5'N, 115°09'W; sounding, 1850 fm; wind, 040°, force 2; weather, clear; sea, rough; wire angle, 11°. 127.50

0	20.91	33.59	0	20.91	33.59	23.47	443	0.00
10	19.96	33.59	10	19.96	33.59	23.72	419	0.04
30	16.63	33.28	20	18.84	33.49	23.93	399	0.08
40	15.12	33.35	30	16.63	33.28	24.30	363	0.12
50	14.00	33.29	50	14.00	33.29	24.89	307	0.19
60	12.93	33.35	75	11.70	33.54	25.53	246	0.26
70	11.93	33.51	100	11.14	33.99	25.98	204	0.32
80	11.62	33.57	150	10.92	34.33	26.29	174	0.41
89	11.70	33.95	200	10.48	34.52	26.51	153	0.50
99	11.17	33.99	250	9.77	34.49	26.61	144	0.57
123	11.00	34.22	300	9.30	34.50	26.70	135	0.64
152	10.92	34.34	400	8.20	34.51	26.88	118	0.78
200	10.48	34.52	500	6.72	34.46	27.05	102	0.89
258	9.67	34.49	600	(5.93)	(34.43)	(27.13)	(94)	(1.00)
358	8.76	34.52						
473	6.98	34.47						
596	5.96	34.43						

HORIZON; October 17, 1954; 2015 GCT; 26°29'N, 113°27.5'W; sounding, 37 fm; wind, 210°, force 3; weather, clear; sea, moderate; wire angle, 01°. 130.30

0	20.48	34.00	0	20.48	34.00	23.89	403	0.00
10	19.84	33.94	10	19.84	33.94	24.02	390	0.04
20	15.29	33.50	20	15.29	33.50	24.77	319	0.08
30	14.78	33.83	30	14.78	33.83	25.14	283	0.10
40	14.96	34.07	50	14.88	34.10	25.32	266	0.16
50	14.88	34.10						

HORIZON; October 18, 1954; 0110 GCT; 26°11'N, 114°03.5'W; sounding, 1150 fm; wind, 300°, force 3; weather, partly cloudy; sea, rough; wire angle, 11°. 130.40

0	22.02	33.71	0	22.02	33.71	23.25	464	0.00
10	21.44	33.69	10	21.44	33.69	23.40	450	0.05
25	18.42	33.67	20	19.76	33.68	23.84	408	0.09
49	12.71	33.39	30	16.88	33.63	24.51	343	0.13
59	11.76	33.41	50	12.58	33.39	25.25	273	0.19
68	11.48	33.58	75	11.26	33.70	25.74	226	0.25
78	11.17	33.72	100	10.80	33.88	25.96	205	0.30
97	10.83	33.84	150	11.06	34.48	26.38	166	0.40
120	10.64	34.26	200	10.88	34.61	26.51	153	0.48
149	11.04	34.48	250	10.44	34.64	26.61	144	0.56
196	10.91	34.60	300	9.64	34.62	26.74	131	0.63
264	10.30	34.64	400	8.02	34.46	26.87	119	0.76
365	8.48	34.47	500	7.04	34.44	26.99	108	0.88
491	7.12	34.44	600	6.14	34.41	27.09	98	0.99
671	5.62	34.40	700	5.44	34.40	27.17	91	1.10
892	4.42	34.52	800	4.84	34.47	27.30	78	1.19
1195	3.56	34.57	1000	4.04	34.54	27.44	65	1.35

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

130.60

HORIZON; October 18, 1954; 1204, 1237 GCT; 25°30.5'N, 115°27.5'W; sounding, 2150 fm; wind, 360°, force 3; weather, cloudy; sea, slight; wire angle, 03°, 04°.

0	21.68	33.82	0	21.68	33.82	23.43	447	0.00
10	21.40	33.78	10	21.40	33.78	23.48	442	0.04
25	20.61	33.77	20	20.94	33.78	23.60	430	0.09
50	14.83	33.42	30	20.02	33.75	23.82	409	0.13
60	13.76	33.48	50	14.83	33.42	24.81	315	0.20
70	12.47	33.65	75	12.26	33.62	25.49	250	0.27
80	12.02	33.58	100	10.06	33.57	25.85	216	0.33
99	10.08	33.57	150	9.94	34.02	26.22	181	0.43
124	9.75	33.89	200	9.14	34.27	26.54	150	0.52
153	9.94	34.03	250	8.48	34.33	26.70	135	0.59
201	9.13	34.27	300	8.06	34.39	26.81	125	0.66
271	8.28	34.35	400	7.50	34.47	26.95	111	0.78
373	7.74	34.48	500	6.32	34.37	27.04	103	0.90
500	6.32	34.37	600	5.80	34.42	27.14	93	1.00
682	5.38	34.48	700	5.32	34.49	27.26	82	1.10
			800	4.85	34.54	27.35	74	1.18
910	4.44	34.56	1000	4.12	34.56	27.45	64	1.34
1212	3.56	34.55						

133.30

HORIZON; October 17, 1954; 1332 GCT; 25°50'N, 113°07'W; sounding, 110 fm; wind, 300°, force 2; weather, clear; sea, slight; wire angle, 04°.

0	21.55	33.79	0	21.55	33.79	23.44	445	0.00
10	21.22	33.89	10	21.22	33.89	23.61	429	0.04
20	19.83	33.68	20	19.83	33.68	23.82	409	0.09
30	16.33	33.19	30	16.33	33.19	24.30	363	0.12
45	14.19	33.27	50	13.70	33.32	24.97	300	0.19
55	13.17	33.38	75	14.22	34.15	25.50	249	0.26
65	13.25	33.68	100	13.56	34.46	25.88	213	0.32
80	14.20	34.30	150	12.59	34.59	26.18	184	0.42
100	13.56	34.46						
120	13.16	34.54						
156	12.47	34.60						

137.23

HORIZON; October 17, 1954; 0552 GCT; 25°35'N, 112°19'W; sounding, 45 fm; wind, 300°, force 2; weather, clear; sea, slight; wire angle, 03°.

0	22.56	34.09	0	22.56	34.09	23.39	450	0.00
10	20.68	33.96	10	20.68	33.96	23.81	410	0.04
20	19.24	33.92	20	19.24	33.92	24.16	377	0.08
30	17.36	33.82	30	17.36	33.82	24.54	340	0.12
40	16.88	33.87	50	16.49	33.89	24.80	316	0.18
50	16.49	33.89						
60	16.08	33.91						

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
77.50-C	X-7	1640	35°04.0'	120°52.0'	80	130°	1	clear	moderate	14.10	33.48
80.51-C	7	2200	34°26.0'	120°33.0'	60	310°	3	clear	rough	13.99	33.42
80.60-C	8	0420	34°09.0'	121°09.0'	1180	330°	4	fog	rough	16.16	33.41
80.80-C	8	1530	33°26.0'	122°32.0'	2260	270°	4	partly cloudy	moderate	16.24	33.18
83.40-C	10	0750	34°13.5'	119°22.0'	13	calm		fog	smooth	16.02	33.37
83.48-C	9	2235	33°57.5'	119°55.0'	50	320°	3	clear	moderate	15.20	33.37
83.55-C	9	1730	33°43.5'	120°24.0'	520	330°	4	clear	very rough	15.52	33.45
85.40-C	10	1155	33°57.0'	119°10.0'	400	290°	1	fog	very rough	15.20	33.43
85.50-C	10	1740	33°37.0'	119°52.0'	246	310°	4	partly cloudy	moderate	15.46a)	33.52
85.60-C	11	0015	33°15.5'	120°36.5'	700	320°	5	cloudy	very rough	15.45	33.53
87.35-C	11	1735	33°51.5'	118°36.5'	100	150°	2	fog	slight	16.99	33.42
87.45-C	11	1120	33°30.0'	119°19.0'	900	070°	5	fog	moderate	14.64	33.52
87.55-C	11	0550	33°10.0'	120°00.5'	650	310°	5	missing	rough	15.61	33.38
90.30-C	12	2115	33°24.0'	117°54.5'	350	140°	1	fog	slight	17.71	33.43
90.45-C	13	0520	32°54.5'	118°56.0'	970	calm		fog	slight	15.99	33.46
90.55-C	13	1050	32°34.0'	119°36.5'	600	300°	1	fog	moderate	16.37	33.37
90.60-C	13	1325	32°24.0'	119°57.0'	460	010°	3	overcast	moderate	15.98	33.39

a) Alternate value, 16.81°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
93.27-C	X-14	1830	32°56.0'	117°19.0'	40	320°	1	fog	calm	14.93	33.32
93.40-C	14	1200	32°30.5'	118°12.5'	900	310°	2	clear	moderate	14.88	33.32
93.45-C	14	0930	32°20.0'	118°33.0'	850	060°	2	clear	moderate	17.58	33.43
93.55-C	14	0300	32°00.5'	119°13.5'	980	310°	5	clear	moderate	17.84	33.46
97.30-C	14	2330	32°15.5'	117°09.0'	33	330°	3	fog	slight	18.27	33.47
97.32-C	15	0030	32°11.5'	117°17.0'	750	310°	4	fog	moderate	18.58	33.50
97.45-C	15	0700	31°45.0'	118°10.0'	850	300°	3	cloudy	moderate	18.00	33.44
97.50-C	15	0930	31°35.0'	118°30.0'	1300	310°	3	fog	moderate	18.18	33.48
97.55-C	15	1200	31°25.0'	118°51.0'	300	330°	3	fog	moderate	18.04	33.48
100.30-C	17	0810	31°40.5'	116°46.5'	245	020°	2	fog	smooth	13.94	33.24
100.40-C	17	0325	31°21.0'	117°27.0'	1080	330°	3	cloudy	moderate	18.43	33.47
100.45-C	17	0055	31°10.5'	117°47.0'	820	320°	4	partly cloudy	moderate	18.46	33.46
100.55-C	16	1955	30°52.5'	118°26.5'	1060	350°	4	cloudy	moderate	18.00	33.39
100.60-C	16	1630	30°42.0'	118°48.0'	1650	330°	2	cloudy	moderate	17.99	33.35
100.80-C	16	0735	30°01.0'	120°08.0'	2150	310°	3	cloudy	moderate	18.41	33.30
103.35-H	24	1710	30°55.5'	116°45.0'	1000	180°	3	cloudy	very rough	16.96	33.30
107.32-H	24	1000	30°26.0'	116°11.0'	230	360°	1	overcast	calm	14.64	33.23
107.40-H	24	0500	30°11.5'	116°45.0'	1450	270°	3	overcast	rough	18.27	33.40
110.35-H	23	0735	29°47.0'	116°01.0'	700	320°	4	overcast	slight	14.88	33.25

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
110.45-H	X-23	1345	29°26.0'	116°41.0'	1200	320°	4	cloudy	moderate	17.44	33.27
110.50-H	23	1540	29°16.5'	116°59.0'	1900	270°	3	cloudy	moderate	18.42	33.45
110.55-H	23	1810	29°00.0'	117°25.0'	2000	320°	3	cloudy	moderate	19.03a)	33.39
113.30-H	23	0200	29°25.0'	115°19.0'	30	320°	4	overcast	rough	15.27b)	33.21
113.40-H	22	2020	29°03.5'	115°58.0'	1080	320°	4	cloudy	rough	17.65	33.31
117.26-H	22	0840	28°52.5'	114°39.0'	116	320°	4	clear	slight	16.86	33.25
117.35-H	22	1310	28°36.5'	115°17.0'	120	320°	4	overcast	rough	17.70	33.30
120.30-H	22	0200	28°13.0'	114°34.0'	55	320°	4	partly cloudy	slight	19.46	33.47
120.45-H	21	0730	27°43.0'	115°33.0'	1300	320°	2	clear	moderate	18.64	33.48
120.55-H	21	0155	27°22.5'	116°13.0'	2100	360°	3	partly cloudy	rough	19.10	33.57
120.60-H	20	2340	27°13.5'	116°30.0'	2075	320°	4	partly cloudy	rough	18.88	33.47
120.80-H	20	1415	26°38.5'	117°46.5'	2200	340°	4	cloudy	rough	20.08c)	33.54
123.37-H	19	0830	27°24.0'	114°39.5'	40	320°	3	thick fog	slight	19.62	33.85
123.45-H	19	1245	27°07.5'	115°11.5'	2350	320°	3	partly cloudy	slight	20.41	33.57
123.50-H	19	1500	26°56.5'	115°30.0'	2000	320°	4	clear	slight	20.43	33.43

a) Alternate value, 19.49°C.

b) Alternate value, 15.07°C.

c) Alternate value, 20.79°C.

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
127.40-H	X-19	0140	26°47.5'	114°29.5'	1600	320°	4	clear	slight	20.24	33.60
127.45-H	18	2230	26°34.0'	114°54.0'	1850	320°	3	clear	slight	20.41	33.64
127.55-H	18	1730	26°12.5'	115°27.0'	2050	360°	4	partly cloudy	moderate	20.43a)	33.56
130.35-H	17	2230	26°19.5'	113°45.0'	75	320°	3	partly cloudy	slight	19.37	33.64
130.45-H	18	0430	25°59.0'	114°27.0'	2000	320°	3	clear	moderate	21.65b)	33.82
130.50-H	18	0640	25°49.0'	114°46.5'	2100	320°	3	clear	moderate	21.38	33.70
130.55-H	18	0900	25°40.5'	115°07.0'	2050	360°	3	clear	moderate	21.45c)	33.67
133.25-H	17	1600	26°05.0'	112°47.5'	45	calm		clear	slight	22.31	34.18
137.30-H	16	0920	25°20.0'	112°45.0'	170	290°	3	clear	slight	22.02	33.86

a) Alternate value, 20.35°C.

b) Alternate value, 21.07°C.

c) Alternate value, 21.18°C.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

CREST; November 10, 1954; 2000 GCT; 29°22'N, 115°19'W; sounding, 35 fm; wind, 110°, force 1; weather, rain; sea, moderate; wire angle, 00°. 113.30

0	16.74	33.38	5.90	0	16.74	33.38	5.90	24.35	358	0.00
5	16.43	33.36	5.82	10	13.94	33.32	5.64	24.92	304	0.03
10	13.94	33.32	5.64	20	12.22	33.33	4.61	25.27	271	0.06
15	13.18	33.31	4.96	30	11.98	33.48	3.90	25.44	255	0.09
20	12.22	33.33	4.61	50	11.54	33.48	3.29	25.52	248	0.14
25	12.08	33.42	4.07							
30	11.98	33.48	3.90							
35	11.95	33.40u	3.78							
50	11.54	33.48	3.29							

CREST; November 10, 1954; 2259 GCT; 29°06'N, 115°07.5'W; sounding, 53 fm; wind, 200°, force 3; weather, overcast; sea, moderate; wire angle, 00°. 115.30

0	16.38	33.35	5.69	0	16.38	33.35	5.69	24.41	353	0.00
10	15.64	33.34	5.82	10	15.64	33.34	5.82	24.58	337	0.03
15	15.46	33.35	5.78	20	14.32	33.33	5.62	24.86	310	0.07
20	14.32	33.33	5.62	30	11.75	33.44	3.90	25.45	254	0.10
25	12.34	33.40	4.71	50	10.68	33.69	2.23	25.83	218	0.14
30	11.75	33.44	3.90							
35	11.46	33.53	3.74							
45	10.87	33.68	2.57							
55	10.60	33.69	1.55							
70	10.64	33.71	1.89							

CREST; November 11, 1954; 0209 GCT; 28°55'N, 115°27'W; sounding, 610 fm; wind, 180°, force 2; weather, overcast; sea, missing; wire angle, 00°. 115.35

0	17.77	33.44	5.50	0	17.77	33.44	5.50	24.16	377	0.00
10	17.68	33.42	5.52	10	17.68	33.42	5.52	24.16	377	0.04
30	16.65	33.40	5.66	20	17.44	33.41	5.60	24.21	372	0.08
40	14.24	33.41	5.66	30	16.65	33.40	5.66	24.39	355	0.11
50	12.64	33.26	5.57	50	12.64	33.26	5.57	25.14	284	0.18
60	11.62	33.28	5.01	75	11.36	33.53	3.97	25.59	240	0.24
70	11.23	33.35	4.64	100	11.26	33.84	2.52	25.84	216	0.30
81	11.45	33.64	3.52	150	10.50	34.14	1.82	26.22	181	0.40
91	11.45	33.80	2.74	200	9.91	34.24	1.66	26.40	164	0.49
101	11.23	33.85	2.50	250	9.62	34.32	1.12	26.50	154	0.57
155	10.47	34.16	1.79	300	9.13	34.35	0.78	26.61	144	0.64
206	9.86	34.25	1.60	400	7.93	34.36	0.50	26.80	126	0.78
265	9.54	34.34	0.95	500	6.90	34.35	0.30	26.94	112	0.91
370	8.23	34.36	0.58	600	5.90	34.38	0.37	27.10	97	1.02
490	7.00	34.35	0.29							
614	5.78	34.39	0.38							

CREST; November 11, 1954; 0511 GCT; 28°37.5'N, 115°16'W; sounding, 115 fm; wind, 110°, force 2; weather, overcast; sea, missing; wire angle, 00°. 117.35

0	17.88	33.43	5.54	0	17.88	33.43	5.54	24.12	381	0.00
10	17.86	33.44	5.57	10	17.86	33.44	5.57	24.14	379	0.04
15	17.30	33.38	5.66	20	17.08	33.37	5.70	24.26	367	0.08
20	17.08	33.37	5.70	30	16.64	33.32	5.76	24.32	361	0.11
25	17.06	33.37	5.68	50	13.90	33.33	5.57	24.94	302	0.18
30	16.64	33.32	5.76	75	12.12	33.56	3.93	25.47	252	0.25
35	15.54	33.22	5.97	100	11.09	33.78	2.88	25.82	218	0.31
45	14.50	33.33	5.63	150	9.88	34.08	2.38	26.28	176	0.41
56	12.89	33.33	5.46							
66	12.23	33.42	4.67							
81	11.95	33.70	3.14							
101	11.04	33.78	2.88							
121	10.06	33.88	2.97							
156	9.81	34.10	2.26							

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

117^{5}.29

CREST; November 12, 1954; 0453 GCT; 28°44'N, 114°49'W; sounding, 55 fm; wind, 320°, force 2; weather, cloudy; sea, slight; wire angle, 00°.

0	17.87	33.37	0	17.87	33.37	24.08	384	0.00
10	16.40	33.30	10	16.40	33.30	24.38	356	0.04
15	14.72	33.24	20	14.12	33.26	24.84	312	0.07
20	14.12	33.26	30	13.67	33.25	24.93	304	0.10
25	13.85	33.21	50	11.62	33.27	25.34	265	0.16
30	13.67	33.25	75	10.86	33.70	25.81	220	0.22
35	13.40	33.25						
45	11.92	33.23						
55	11.34	33.39						
65	11.15	33.57						
80	10.82	33.75						
100a)	-	33.96						

118.26

CREST; November 11, 1954; 2257 GCT; 28°41'N, 114°33'W; sounding, 50 fm; wind, 320°, force 2; weather, fog; sea, slight; wire angle, 00°.

0	17.56	33.36	0	17.56	33.36	24.14	378	0.00
10	16.03	33.33	10	16.03	33.33	24.48	346	0.04
15	15.82	33.35	20	15.80	33.33	24.53	342	0.07
20	15.80	33.33	30	14.84	33.33	24.74	322	0.10
25	15.52	33.34	50	11.65	33.36	25.40	258	0.16
30	14.84	33.33	75	10.90	33.81	25.89	212	0.22
35	12.84	33.22						
45	11.76	33.28						
55	11.66	33.48						
65	11.08	33.68						
80	10.84	33.85						
90a)	-	33.86						

118.34

CREST; November 12, 1954; 0702, 0824 GCT; 28°30'N, 115°06'W; sounding, 80 fm; wind, 220°, force 3; weather, fog; sea, slight; wire angle, 00°, 00°.

0	17.73	33.39	0	17.73	33.39	24.12	380	0.00
10	17.55	33.43	10	17.55	33.43	24.20	373	0.04
15	17.29	33.37	20	16.39	33.30	24.37	356	0.07
			30	15.08	33.25	24.62	332	0.11
20	16.39	33.30	50	13.08	33.19	25.00	296	0.17
25	15.74	33.29	75	12.83	33.69	25.42	256	0.24
30	15.08	33.25	100	12.18	34.02	25.82	219	0.30
35	14.18	33.26						
45	13.42	33.24						
55	12.89	33.17						
65	12.04	33.36						
80	12.81	33.73						
100	12.18	34.02						
125	11.52	34.05						

a) On seven stations occupied by the RV Crest on Cruise 5411, where no temperature is listed for the last depth, the Nansen bottle was placed on the cast one meter above the bottom for a water sample only.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

CREST; November 12, 1954; 1127, 1206 GCT; 28°19.5'N, 115°24.5'W; sounding, 165 fm; wind, 320°, force 4; weather, cloudy; sea, slight; wire angle, 07°, 05°. 118.39

0	19.00	33.51	0	19.00	33.51	23.90	401	0.00
10	18.89	33.53	10	18.89	33.53	23.95	397	0.04
15	18.15	33.45	20	16.88	33.44	24.37	357	0.08
20	16.88	33.44	30	16.16	33.39	24.50	344	0.11
25	16.79	33.47	50	13.19	33.24	25.01	296	0.18
30	16.16	33.39	75	11.93	33.51	25.47	252	0.24
35	16.12	33.40	100	11.65	33.85	25.78	222	0.30
45	13.59	33.22	150	10.94	34.14	26.13	189	0.41
55	12.82	33.27	200	10.78	34.33	26.32	172	0.50
70	12.20	33.46	250	9.95	34.38	26.50	154	0.58
84	11.40	33.58						
105	11.34	33.86						
135	11.56	34.13						
170	11.05	34.27						
204	10.72	34.34						
254	9.86	34.38						

CREST; November 12, 1954; 1508 GCT; 28°07'N, 115°42'W; sounding, 800 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 00°. 118.44

0	18.44	33.49	0	18.44	33.49	24.03	389	0.00
10	17.49	33.42	10	17.49	33.42	24.21	372	0.04
31	13.90	33.31	20	15.90	33.36	24.53	342	0.08
41	12.66	33.30	30	14.10	33.31	24.89	307	0.11
51	12.50	33.49	50	12.51	33.46	25.32	266	0.16
61	12.85	33.85	75	12.50	33.96	25.70	230	0.22
71	12.66	33.91	100	12.18	34.16	25.92	209	0.28
80	12.34	34.03	150	11.73	34.42	26.21	182	0.38
90	12.20	34.09	200	11.17	34.50	26.38	166	0.47
100	12.18	34.16	250	10.45	34.48	26.48	156	0.55
155	11.68	34.43	300	9.56	34.49	26.65	140	0.63
205	11.10	34.50	400	7.83	34.46	26.90	116	0.76
264	10.22	34.47	500	6.78	34.36	26.96	110	0.88
369	8.28	34.51	600	5.96	34.39	27.10	98	0.99
487	6.90	34.36						
613	5.88	34.39						

CREST; November 11, 1954; 0805 GCT; 28°21'N, 115°04'W; sounding, 69 fm; wind, 210°, force 2; weather, cloudy; sea, slight; wire angle, 00°. 118 5.35

1	18.45	33.46	5.54	0	(18.45)	(33.46)	(5.54)	(24.00)	(392)	(0.00)
11	18.09	33.43	5.59	10	18.11	33.43	5.58	24.06	386	0.04
16	17.80	33.44	5.64	20	16.71	33.40	5.83	24.37	356	0.08
21	16.70	33.40	5.83	30	16.68	33.39		24.38	356	0.11
26	16.68	33.39	6.25	50	14.34	33.28		24.81	314	0.18
31	16.68	33.39	5.78	75	11.80	33.53	3.80	25.51	248	0.25
36	16.60	33.36	5.83	100	12.09	34.00	1.83	25.82	219	0.31
46	14.55	33.29	6.34							
56	13.74	33.26	5.78							
66	11.85	33.35	5.41							
81	12.28	33.74	2.89							
101	12.09	34.01	1.82							
125a)	-	34.01	-							

a) See footnote, page 278.

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OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

119.31

CREST; November 12, 1954; 0155 GCT; 28°24'N, 114°45'W; sounding, 57 fm; wind, 360°, force 1; weather, cloudy; sea, slight; wire angle, 06°.

0	18.28	33.41	0	18.28	33.41	24.01	391	0.00
10	18.16	33.40	10	18.16	33.40	24.02	390	0.04
15	17.68	33.39	20	17.3	33.36	24.20	372	0.08
20	17.3	33.36	30	16.49	33.39	24.42	352	0.11
25	16.9	33.37	50	13.89	33.18	24.83	313	0.18
30	16.49	33.39	75	11.72	33.53	25.52	247	0.25
35	16.35	33.33						
45	14.32	33.18						
55	12.73	33.24						
65	11.83	33.42						
80	11.63	33.68						
103a)	-	33.93						

1195.24

CREST; November 11, 1954; 2025 GCT; 28°30.5'N, 114°17'W; sounding, 42 fm; wind, 320°, force 2; weather, overcast; sea, slight; wire angle, 00°.

0	17.72	33.39	0	17.72	33.39	24.12	380	0.00
10	17.39	33.40	10	17.39	33.40	24.22	371	0.04
15	16.76	33.40	20	15.27	33.33	24.65	330	0.07
20	15.27	33.33	30	13.18	33.25	25.03	294	0.10
25	13.90	33.21	50	11.60	33.39	25.44	255	0.16
30	13.18	33.25						
35	12.90	33.29						
40	12.32	33.33						
50	11.60	33.39						
76a)	-	33.68						

120.29

CREST; November 11, 1954; 1720 GCT; 28°17'N, 114°32.5'W; sounding, 55 fm; wind, 060°, force 2; weather, partly cloudy; sea, missing; wire angle, 00°.

0	19.08	33.48	0	19.08	34.48	23.86	406	0.00
10	18.92	33.49	10	18.92	33.49	23.91	401	0.04
15	18.86	33.46	20	18.86	33.47	23.90	402	0.08
20	18.86	33.47	30	18.82	33.48	23.93	399	0.12
25	18.86	33.46	50	18.00	33.40	24.07	385	0.20
30	18.82	33.48	75	12.25	33.40	25.32	266	0.28
35	18.76	33.49						
45	18.42	33.45						
55	16.62	33.30						
66	14.15	33.21						
80	12.05	33.46						

120.35

CREST; November 11, 1954; 1112, 1123 GCT; 28°03'N, 114°53'W; sounding, 47 fm; wind, 240°, force 3; weather, drizzle; sea, slight; wire angle, 03°, missing.

2	18.84	33.48	6.00	0	(18.84)	(33.48)	(6.00)	(23.92)	(400)	(0.00)
12	18.53	33.47	5.43	10	18.62	33.47	5.57	23.97	395	0.04
17	18.34	33.47	5.58	20	18.20	33.45	5.58	24.06	386	0.08
22	18.16	33.44	5.58	30	17.99	33.42	5.69	24.08	384	0.12
				50	16.50	33.37	5.86	24.40	353	0.19
27	18.07	33.42	5.54	75	(11.50)	(33.46)		(25.51)	(248)	(0.27)
32	17.98	33.42	5.72							
37	17.70	33.44	5.76							
47	16.86	33.40	5.84							
57	14.25	33.25	5.94							
72	12.08	33.40	4.43							
85a)	-	33.58	-							

a) See footnote, page 278.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

CREST; November 12, 1954; 1813 GCT; 27°51'N, 115°28'W; sounding, 100 fm; wind, 350°, force 4; weather, clear; sea, moderate; wire angle, 04°. 120.43

0	19.04	33.67	0	19.04	33.67	24.01	391	0.00
10	18.99	33.67	10	18.99	33.67	24.03	389	0.04
15	18.92	33.68	20	18.58	33.69	24.15	377	0.08
20	18.58	33.69	30	14.74	33.39	24.81	315	0.11
25	16.96	33.55	50	12.70	33.60	25.38	260	0.17
30	14.74	33.39	75	12.10	33.90	25.74	226	0.23
36	13.57	33.37	100	11.93	34.18	25.98	203	0.28
46	13.34	33.58	150	11.83	34.39	26.17	185	0.38
56	12.40	33.62						
66	12.36	33.87						
81	11.90	33.93						
101	11.94	34.18						
121	12.04	34.29						
155	11.78	34.41						

CREST; November 11, 1954; 1409 GCT; 27°57'N, 114°32'W; sounding, 27 fm; wind, 180°, force 1; weather, partly cloudy; sea, slight; wire angle, 01°. 121.32

0	18.23	33.45	0	18.23	33.45	24.04	388	0.00
10	17.26	33.41	10	17.26	33.41	24.26	368	0.04
15	16.58	33.37	20	15.86	33.33	24.52	342	0.07
20	15.86	33.33	30	14.50	33.33	24.82	314	0.11
25	15.35	33.32						
30	14.50	33.33						
48a)	-	33.40						

CREST; November 12, 1954; 2119 GCT; 27°43'N, 115°07'W; sounding, 53 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 05°. 121.40

0	19.58	33.64	0	19.58	33.64	23.86	406	0.00
10	18.85	33.64	10	18.85	33.64	24.04	388	0.04
15	18.56	33.65	20	16.98	33.48	24.38	356	0.08
20	16.98	33.48	30	14.32	33.34	24.86	310	0.11
25	14.54	33.35	50	13.21	33.47	25.18	279	0.17
30	14.32	33.34	75	13.31	33.76	25.39	259	0.24
35	13.96	33.30						
45	13.26	33.41						
55	13.16	33.68						
65	13.26	33.73						
80	13.32	33.78						

CREST; December 3, 1954; 1759 GCT; 33°14'N, 123°12'W; sounding, 2300+ fm; wind, 190°, force 4; weather, cloudy; sea, rough; wire angle, 03°. 80.90

0	16.1	33.04	0	16.1	33.04	24.24	369	0.00
10	16.02	33.04	10	16.02	33.04	24.26	367	0.04
25	15.89	33.03	20	15.94	33.03	24.27	366	0.07
51	15.08	33.11	30	15.84	33.04	24.30	363	0.11
61	12.60	33.13	50	15.20	33.11	24.49	345	0.18
71	11.35	33.09	75	11.10	33.09	25.29	269	0.26
81	10.78	33.19	100	9.74	33.44	25.80	221	0.32
101	9.70	33.44	150	8.57	33.81	26.27	176	0.42
126	9.00	33.60	200	8.11	34.01	26.50	154	0.50
155	8.50	33.85	250	7.47	34.08	26.65	140	0.58
203	8.07	34.01	300	6.88	34.13	26.77	128	0.65
272	7.18	34.10	400	6.03	34.20	26.94	112	0.77
372	6.27	34.18	500	5.38	34.28	27.08	99	0.88
501	5.37	34.28	600	4.98	34.33	27.17	91	0.99
685	4.71	34.37	700	4.67	34.38	27.24	84	1.08
909	4.15	34.49	800	4.41	34.44	27.32	76	1.17
1220	3.32	34.53	1000	3.89	34.51	27.43	66	1.33

a) See footnote, page 278.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m
82.47	CREST; December 4, 1954; 1838 GCT; 34°16'N, 119°58'W; sounding, 300 fm; wind, 090°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.							
0	15.7	33.33	0	15.7	33.33	24.55	339	0.00
10	14.86	33.35	10	14.86	33.35	24.75	320	0.03
31	14.16	33.37						
57	13.79	33.38						
67	12.66	33.43						
88	10.57	33.63						
117	9.39	33.86						
143	9.02	33.97	150	8.96	33.98	26.35	168	
162	8.84	33.99	200	8.68	34.03	26.43	161	
201	8.67	34.03	250	8.38	34.11	26.54	150	
280	8.12	34.14	300	7.92	34.15	26.64	141	
386	6.99	34.18	400	6.88	34.19	26.82	124	
507	6.42	34.24	500	6.44	34.24	26.92	114	
83.43	CREST; December 4, 1954; 2216 GCT; 34°08.5'N, 119°33.5'W; sounding, 130 fm; wind, 290°, force 2; weather, partly cloudy; sea, moderate; wire angle, 02°.							
0	16.2	33.35	0	16.2	33.35	24.45	349	0.00
10	15.41	33.37	10	15.41	33.37	24.65	330	0.03
15	15.30	33.33	20	15.16	33.35	24.69	326	0.07
20	15.16	33.35	30	14.65	33.37	24.81	315	0.10
25	15.06	33.35	50	12.70	33.38	25.22	276	0.16
30	14.65	33.37						
35	14.20	33.36						
45	13.24	33.39						
56	12.02	33.35						
66	11.26	33.38						
83.51	CREST; December 4, 1954; 1320 GCT; 33°51.5'N, 120°08'W; sounding, 100 fm; wind, 280°, force 2; weather, clear; sea, moderate; wire angle, 00°.							
0	14.8	33.39	0	14.8	33.39	24.80	316	0.00
10	14.72	33.38	10	14.72	33.38	24.80	316	0.03
15	14.16	33.40	20	12.78	33.41	25.23	275	0.06
20	12.78	33.41	30	12.34	33.34	25.26	272	0.09
30	12.34	33.34	50	10.71	33.43	25.63	237	0.14
35	12.25	33.36	75	9.73	33.61	25.93	208	0.20
45	11.27	33.40	100	9.60	33.64	25.98	204	0.25
55	10.33	33.51	150	9.01	33.94	26.31	172	0.34
66	9.96	33.57						
81	9.66	33.64						
100	9.60	33.64						
119	9.56	33.70						
153	8.94	33.95						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

83.60

CREST; December 4, 1954; 0727 GCT; 33°34'N, 120°44.5'W; sounding, 820 fm; wind, 220°, force 4; weather, missing; sea, moderate; wire angle, 05°.

0	14.5	33.32	0	14.5	33.32	24.81	315	0.00
10	14.32	33.33	10	14.32	33.33	24.85	311	0.03
30	14.22	33.38	20	14.28	33.36	24.88	308	0.06
40	14.06	33.39	30	14.22	33.38	24.91	305	0.09
50	11.30	33.16	50	11.30	33.16	25.31	267	0.15
60	10.70	33.18	75	10.02	33.50	25.80	221	0.21
70	10.28	33.40	100	8.68	33.63	26.12	190	0.26
80	9.76	33.55	150	8.32	33.93	26.41	163	0.35
89	9.04	33.57	200	7.84	34.02	26.55	149	0.43
100	8.68	33.63	250	7.44	34.15	26.71	134	0.50
124	8.43	33.83	300	7.12	34.20	26.79	127	0.57
152	8.30	33.93	400	6.55	34.28	26.93	113	0.70
200	7.84	34.02	500	6.01	34.33	27.04	103	0.81
258	7.38	34.16	600	5.36	34.35	27.14	93	0.92
362	6.76	34.25						
481	6.12	34.32						
612	5.29	34.35						

85.39

CREST; December 5, 1954; 0336, 0353 GCT; 33°59'N, 119°04'W; sounding, 295 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate; wire angle, 02°, 02°.

0	15.9	33.38	0	15.9	33.38	24.55	340	0.00
10	15.84	33.40	10	15.84	33.40	24.57	338	0.03
31	15.61	33.39	20	15.74	33.40	24.60	335	0.07
40	12.78	33.27	30	15.62	33.39	24.62	333	0.10
52	11.88	33.31	50	12.02	33.29	25.28	270	0.16
			75	10.31	33.42	25.69	231	0.22
62	10.48	33.34	100	9.83	33.54	25.86	215	0.28
72	10.37	33.40	150	9.45	33.79	26.12	190	0.38
82	10.10	33.49	200	8.90	33.99	26.36	167	0.47
92	9.99	33.49	250	8.42	34.12	26.54	150	0.56
102	9.78	33.59	300	8.01	34.20	26.67	138	0.63
111	9.69	33.68	400	7.12	34.24	26.83	123	0.77
146	9.48	33.78	500	6.13	34.31	27.01	106	0.89
165	9.32	33.88						
204	8.82	34.00						
282	8.18	34.19						
387	7.25	34.23						
509	6.04	34.32						

85.45

CREST; December 5, 1954; 0826 GCT; 33°47'N, 119°31.5'W; sounding, 1000 fm; wind, 270°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	15.3	33.41	0	15.3	33.41	24.70	325	0.00
10	15.20	33.38	10	15.20	33.38	24.70	325	0.03
30	15.14	33.38	20	15.16	33.38	24.71	324	0.06
40	14.32	33.36	30	15.14	33.38	24.71	324	0.10
50	11.78	33.38	50	11.78	33.38	25.39	260	0.16
61	11.31	33.39	75	9.97	33.53	25.83	218	0.22
71	10.20	33.48						
81	9.76	33.58						
90	9.64	33.59						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	$\delta_{T,3}$ 10^{-5} cm/g	ΔD dyn. m

85.55

CREST; December 5, 1954; 1447 GCT; 33°26.5'N, 120°13.5'W; sounding, 620 fm; wind, 300°, force 4; weather, cloudy; sea, moderate; wire angle, 01°.

0	16.1	33.28	0	16.1	33.28	24.42	352	0.00
10	16.01	33.43	10	16.01	33.43	24.56	339	0.04
30	15.65	33.35	20	15.89	33.38	24.55	340	0.07
40	15.09	33.37	30	15.65	33.35	24.58	337	0.10
51	12.40	33.24	50	13.45	33.24	24.96	300	0.17
61	11.12	33.27	75	10.20	33.42	25.71	229	0.23
71	10.45	33.39	100	9.42	33.57	25.95	206	0.29
81	9.88	33.45	150	8.41	33.89	26.36	167	0.38
90	9.55	33.53	200	7.81	34.00	26.54	150	0.46
100	9.42	33.57	250	7.76	34.14	26.66	139	0.54
124	8.94	33.76	300	7.52	34.19	26.73	132	0.61
154	8.34	33.90	400	6.77	34.23	26.87	119	0.74
203	7.78	34.01	500	6.23	34.26	26.96	110	0.86
263	7.76	34.16	600	5.82	34.31	27.05	102	0.97
366	7.00	34.22						
487	6.30	34.27						
613	5.77	34.31						

87.40

CREST; December 6, 1954; 0832 GCT; 33°40'N, 118°58.5'W; sounding, 420 fm; wind, 280°, force 3; weather, clear; sea, moderate; wire angle, 10°.

0	15.7	33.41	0	15.7	33.41	24.61	334	0.00
10	15.58	33.41	10	15.58	33.41	24.64	331	0.03
30	13.73	33.36	20	15.43	33.40	24.67	328	0.07
40	11.96	33.34	30	13.73	33.36	25.00	297	0.10
51	11.25	33.34	50	11.28	33.34	25.45	254	0.15
59	10.34	33.45	75	9.97	33.52	25.82	219	0.21
70	10.04	33.50	100	9.69	33.69	26.00	202	0.26
79	9.88	33.58	150	9.16	34.03	26.35	168	0.36
89	9.75	33.66	200	8.67	34.10	26.49	155	0.44
98	9.70	33.68	250	8.22	34.15	26.59	146	0.52
123	9.30	33.85	300	7.89	34.20	26.68	137	0.59
151	9.15	34.03	400	7.25	34.31	26.86	120	0.72
199	8.69	34.10	500	6.43	34.33	26.99	108	0.84
258	8.18	34.15	600	5.89	34.39	27.11	96	0.96
359	7.52	34.30						
477	6.62	34.32						
604	5.88	34.39						

87.50

CREST; December 6, 1954; 0236 GCT; 33°20'N, 119°39.5'W; sounding, 40 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 03°.

0	15.5	33.46	0	15.5	33.46	24.70	325	0.00
10	15.41	33.43	10	15.41	33.43	24.69	326	0.03
15	15.40	33.47	20	15.32	33.43	24.71	324	0.06
20	15.32	33.43	30	14.43	33.43	24.90	306	0.10
25	15.03	33.44a)	50	11.63	33.53	25.54	245	0.15
30	14.43	33.43						
35	13.66	33.42						
40	13.24	33.44						
51	11.52	33.53						
61	11.02	33.42						

a) Mean value of 33.42 and 33.47‰.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; December 5, 1954; 2035 GCT; 33°00'N, 120°21.5'W; sounding, 520 fm; wind, 120°, force 3; weather, cloudy; sea, moderate; wire angle, 20°. 87.60

0	16.9	33.43	0	16.9	33.43	24.35	359	0.00
10	16.46	33.44	10	16.46	33.44	24.46	348	0.04
29	16.45	33.40	20	16.46	33.42	24.45	349	0.07
39	16.42	33.46	30	16.45	33.40	24.44	350	0.10
48	16.14	33.38	50	15.37	33.33	24.63	332	0.17
57	13.20	33.24	75	11.33	33.28	25.40	259	0.25
66	12.04	-	100	9.70	33.48	25.84	217	0.31
76	11.30	33.28	150	8.56	33.83	26.29	174	0.41
86	10.36	33,32	200	8.09	34.04	26.53	151	0.49
94	9.92	33.42	250	7.79	34.14	26.65	140	0.56
111	9.20	33.57	300	7.48	34.19	26.73	132	0.64
133	8.94	33.80	400	6.68	34.25	26.89	117	0.76
150	8.56	33.83	500	(6.13)	(34.33)	(27.03)	(104)	(0.88)
185	8.20	33.97						
256	7.76	34.15						
353	7.00	34.22a)						
470	6.30	34.31						

CREST; December 6, 1954; 1812 GCT; 33°28.5'N, 117°46.5'W; sounding, 150 fm; wind, 290°, force 1; weather, partly cloudy; sea, slight; wire angle, 07°. 90.28

0	16.2	33.42	0	16.2	33.42	24.51	343	0.00
10	16.02	33.43	10	16.02	33.43	24.56	339	0.03
16	16.00	33.42	20	15.60	33.39	24.62	333	0.07
20	15.60	33.39	30	13.49	33.29	24.99	298	0.10
25	14.00	33.32	50	11.75	33.26	25.31	267	0.16
30	13.49	33.29	75	10.38	33.44	25.69	231	0.22
35	12.52	33.26	100	9.88	33.59	25.89	212	0.28
46	12.01	33.26	150	9.48	33.94	26.23	180	0.37
55	11.22	33.26	200	9.28	34.14	26.42	162	0.46
69	10.56	33.39	250	(8.52)	(34.17)	(26.56)	(148)	(0.54)
83	10.10	33.49						
102	9.88	33.60						
130	9.62	33.82						
163	9.40	34.00						
197	9.29	34.13						
247	8.57	34.17						

CREST; December 7, 1954; 1123 GCT; 33°11'N, 118°23.5'W; sounding, 650 fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 17°. 90.37

0	16.5	33.46	0	16.5	33.46	24.47	347	0.00
10	16.49	33.47	10	16.49	33.47	24.48	346	0.04
31	14.22	33.32	20	16.50	33.47	24.48	346	0.07
40	12.62	33.28	30	14.57	33.33	24.80	316	0.10
49	11.75	33.26	50	11.68	33.26	25.32	266	0.16
59	10.94	33.29	75	10.13	33.41	25.71	229	0.22
68	10.50	33.36	100	9.94	33.60	25.89	212	0.28
77	10.09	33.43	150	9.75	33.96	26.20	183	0.38
86	10.06	33.54	200	9.49	34.11	26.36	167	0.47
96	9.98	33.58	250	8.40	34.09	26.52	152	0.55
119	9.84	33.69	300	7.93	34.11	26.61	144	0.63
146	9.78	33.93	400	7.22	34.23	26.80	126	0.77
194	9.54	34.11	500	6.48	34.34	26.99	108	0.89
250	8.40	34.09	600	(5.71)	(34.38)	(27.12)	(95)	(1.00)
351	7.56	34.15						
467	6.76	34.31						
591	5.76	34.38						

a) Mean value of 34.18 and 34.25‰.

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

90.50

CREST; December 7, 1954; 1929, 1949 GCT; 32°45.5'N, 119°16.5'W; sounding, 200 fm; wind, 300°, force 6; weather, partly cloudy; sea, rough; wire angle, 28°, 35°.

0	16.7r	33.41	0	15.8	33.41	24.59	336	0.00
10	15.79	33.44	10	15.79	33.44	24.62	333	0.03
14	15.79	33.40	20	15.78	33.40	24.59	336	0.07
19	15.78	33.40	30	15.68	33.44	24.64	331	0.10
23	15.79	33.42	50	11.23	33.44	25.54	245	0.16
28	15.78	33.45	75	9.95	33.57	25.87	214	0.22
32	15.54	33.41	100	9.58	33.67	26.00	202	0.27
41	11.96	33.36	150	9.08	33.88	26.25	178	0.36
49	11.29	33.44	200	8.71	34.15	26.52	152	0.45
58	10.82	33.34	250	8.00	34.14	26.62	143	0.52
70	10.13	33.56						
85	9.72	33.57						
105	9.55	33.72						
138	9.12	33.84						
170	9.08	34.04						
209	8.54	34.15						
267	7.88	34.14						

90.70

CREST; December 8, 1954; 0746 GCT; 32°05'N, 120°38'W; sounding, 1900 fm; wind, 310°, force 5; weather, partly cloudy; sea, very rough; wire angle, 25°.

0	16.4	33.47	0	16.4	33.47	24.50	344	0.00
10	16.40	33.41	10	16.40	33.41	24.46	348	0.04
24	16.41	33.43	20	16.41	33.43	24.47	347	0.07
53	14.65	33.39	30	16.25	33.42	24.50	344	0.10
62	13.48	33.29	50	14.90	33.40	24.78	318	0.17
70	12.51	33.32	75	12.12	33.35	25.31	267	0.24
82	11.68	33.38	100	10.12	33.47	25.76	224	0.31
100	10.12	33.47	150	8.80	33.80	26.23	180	0.41
122	9.45	33.61	200	8.08	33.99	26.49	155	0.49
147	8.85	33.78	250	7.48	34.07	26.64	141	0.57
193	8.18	33.97	300	6.99	34.09	26.73	132	0.64
260	7.37	34.08	400	6.34	34.16	26.87	119	0.77
354	6.58	34.09	500	5.88	34.32	27.05	102	0.89
482	5.96	34.31	600	5.38	34.33	27.12	95	0.99
654	5.14	34.34	700	4.99	34.36	27.19	89	1.09
875	4.41	34.46	800	4.63	34.43	27.29	79	1.18
1178	3.52	34.52	1000	4.02	34.49	27.40	69	1.35

93.30

CREST; December 9, 1954; 0522 GCT; 32°49.5'N, 117°31'W; sounding, 450 fm; wind, 310°, force 1; weather, cloudy; sea, slight; wire angle, 02°.

0	16.9	33.41	0	16.9	33.41	24.34	360	0.00
10	16.66	33.42	10	16.66	33.42	24.40	354	0.04
30	14.81	33.30	20	16.56	33.41	24.42	352	0.07
40	12.46	33.28	30	14.81	33.30	24.72	323	0.10
50	11.42	33.28	50	11.42	33.28	25.38	260	0.16
61	10.76	33.30	75	10.21	33.47	25.74	226	0.22
70	10.36	33.43	100	9.70	33.63	25.95	206	0.28
80	10.10	33.49	150	9.51	34.06	26.32	171	0.37
90	9.76	33.61	200	9.28	34.15	26.43	161	0.46
99	9.70	33.63	250	8.71	34.20	26.56	148	0.54
125	9.42	33.80	300	8.10	34.24	26.68	137	0.61
153	9.52	34.07	400	7.12	34.28	26.86	120	0.75
202	9.26	34.15	500	6.40	34.35	27.01	106	0.87
262	8.52	34.22	600	5.72	34.40	27.14	93	0.97
365	7.43	34.26						
486	6.50	34.34						
613	5.62	34.41						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δT_3	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

CREST; December 8, 1954; 1849 GCT; 32°08'N, 118°55'W; sounding, 800 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 25°. 93.50

0	15.4	33.48	0	15.4	33.48	24.73	322	0.00
10	15.28	33.40	10	15.28	33.40	24.70	325	0.03
28	15.25	33.40	20	15.26	33.40	24.70	325	0.06
43	12.94	33.22	30	15.24	33.40	24.71	324	0.10
52	11.52	33.25	50	11.84	33.24	25.27	271	0.16
61	10.65	33.37	75	9.81	33.50	25.83	218	0.22
71	9.96	33.43	100	9.19	33.69	26.08	194	0.27
80	9.66	33.56	150	8.82	33.99	26.38	166	0.36
92	9.40	33.62	200	8.45	34.13	26.54	150	0.44
101	9.16	33.70	250	8.12	34.23	26.67	138	0.52
120	9.14	33.86	300	7.65	34.26	26.77	128	0.58
144	8.89	33.97	400	6.99	34.27	26.87	119	0.71
187	8.53	34.09	500	6.38	34.30	26.97	110	0.84
240	8.20	34.22	600	(5.78)	(34.37)	(27.10)	(97)	(0.95)
336	7.36	34.27						
453	6.68	34.27						
582	5.88	34.36						

CREST; December 9, 1954; 1910 GCT; 31°55.5'N, 117°50'W; sounding, 420 fm; wind, 040°, force 3; weather, cloudy; sea, slight; wire angle, 02°. 97.40

0	16.4	33.48	0	16.4	33.48	24.51	343	0.00
10	16.26	33.45	10	16.26	33.45	24.52	342	0.03
30	15.77	33.45	20	16.02	33.45	24.57	338	0.07
40	14.67	33.34	30	15.77	33.45	24.63	332	0.10
50	12.54	33.31	50	12.54	33.31	25.20	278	0.16
61	11.30	33.31	75	9.96	33.49	25.80	221	0.23
71	10.20	33.43	100	9.35	33.67	26.04	198	0.28
81	9.68	33.55	150	8.75	33.95	26.36	167	0.37
91	9.46	33.65	200	8.01	34.05	26.55	149	0.45
100	9.35	33.67	250	7.82	34.17	26.67	138	0.53
125	9.08	33.84	300	7.51	34.21	26.75	130	0.60
154	8.69	33.96	400	6.57	34.26	26.92	114	0.72
203	7.98	34.06	500	6.06	34.34	27.05	102	0.84
262	7.79	34.19	600	5.46	34.37	27.14	93	0.94
365	6.78	34.23						
486	6.14	34.33						
611	5.37	34.37						

CREST; December 12, 1954; 0358 GCT; 31°42'N, 116°43.5'W; sounding, 56 fm; wind, 310°, force 2; weather, clear; sea, moderate; wire angle, 03°. 100.29

0	12.4	33.42	0	12.4	33.42	25.31	267	0.00
10	12.10	33.40	10	12.10	33.40	25.35	263	0.03
15	11.69	33.48	20	11.62	33.48	25.50	249	0.05
20	11.62	33.48	30	11.26	33.52	25.60	240	0.08
25	11.48	-	50	10.94	33.58	25.70	230	0.12
30	11.26	33.52	75	10.82	33.68	25.80	221	0.18
35	11.16	33.55						
45	11.00	33.57						
56	10.90	33.60						
66	10.88	33.65						
81	10.74	33.70						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

100.50

CREST; December 11, 1954; 1731 GCT; 31°05.5'N, 118°01'W; sounding, 880 fm; wind, 220°, force 3; weather, cloudy; sea, rough; wire angle, 07°.

0	15.2r	33.43	0	16.1	33.43	24.54	340	0.00
10	16.07	33.46	10	16.07	33.46	24.57	338	0.03
25	16.06	33.41	20	16.07	33.42	24.54	340	0.07
51	14.96	33.48	30	16.05	33.41	24.53	341	0.10
61	12.82	33.23	50	15.35	33.48	24.74	321	0.17
71	11.17	33.35	75	10.82	33.38	25.57	242	0.24
81	10.50	33.40	100	9.69	33.55	25.89	212	0.30
101	9.63	33.58	150	8.56	33.88	26.33	170	0.39
125	9.18	33.70	200	7.89	34.06	26.57	148	0.47
154	8.45	33.94	250	7.32	34.12	26.70	135	0.55
203	7.87	34.06	300	6.92	34.17	26.80	126	0.61
272	7.06	-	400	6.62	34.28	26.92	114	0.74
375	6.74	34.26	500	5.88	34.35	27.08	99	0.85
504	5.84	34.35	600	5.29	34.40	27.19	89	0.95
687	4.92	34.45	700	4.87	34.46	27.28	80	1.04
912	4.13	34.55	800	4.50	34.51	27.37	72	1.13
1222	3.36	34.63	1000	3.85	34.58	27.49	60	1.28

100.70

CREST; December 11, 1954; 0526 GCT; 30°20.5'N, 119°27'W; sounding, 2000+ fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 30°.

0	17.3	33.33	0	17.3	33.33	24.18	375	0.00
9	17.28	33.28	10	17.27	33.28	24.15	378	0.04
23	17.24	33.30	20	17.24	33.30	24.17	376	0.08
49	17.30	33.31	30	17.25	33.31	24.18	375	0.11
58	17.30	33.28	50	17.30	33.31	24.17	376	0.19
66	15.22	33.15	75	14.01	33.09	24.73	322	0.28
79	13.69	33.09	100	12.44	33.16	25.10	287	0.35
95	12.83	33.14	150	9.21	33.66	26.06	196	0.48
116	11.14	33.23	200	8.52	34.02	26.45	159	0.56
141	9.38	33.58	250	8.02	34.14	26.62	143	0.64
184	8.72	33.94	300	7.69	34.22	26.73	132	0.71
249	8.04	34.14	400	6.91	34.33	26.92	114	0.84
336	7.46	34.27	500	5.98	34.36	27.07	100	0.96
455	6.44	34.36	600	5.20	34.35	27.16	92	1.06
616	5.12	34.35	700	4.82	34.38	27.23	85	1.15
824	4.47	34.51	800	4.52	34.49	27.35	74	1.24
1119	3.69	34.58	1000	3.99	34.56	27.46	63	1.40

100.90

CREST; December 10, 1954; 1857 GCT; 29°41'N, 120°47'W; sounding, 1850 fm; wind, 270°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

0	17.4	33.27	0	17.4	33.27	24.11	382	0.00
10	17.04	33.26	10	17.04	33.26	24.19	374	0.04
26	17.04	33.23	20	17.04	33.23	24.17	376	0.08
55	16.86	33.23	30	17.03	33.23	24.17	376	0.11
65	15.48	33.22	50	16.91	33.23	24.20	373	0.19
74	14.58	33.15	75	14.51	33.15	24.67	328	0.28
89	13.44	33.22	100	12.61	33.18	25.08	289	0.35
108	12.08	33.15	150	9.85	33.33	25.70	230	0.48
131	10.46	33.20	200	8.68	33.84	26.28	175	0.59
159	9.42	33.54	250	7.93	33.97	26.50	154	0.67
209	8.54	33.87	300	7.32	34.04	26.64	141	0.75
283	7.51	34.02	400	6.42	34.17	26.86	120	0.88
383	6.55	34.15	500	5.71	34.26	27.03	104	1.00
517	5.60	34.27	600	5.12	34.33	27.15	92	1.11
698	4.72	34.41	700	4.71	34.41	27.26	82	1.20
928	4.29	34.52	800	4.50	34.48	27.34	74	1.29
1234	3.36	34.55	1000	4.08	34.53	27.43	66	1.44

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

CREST; December 12, 1954; 1713 GCT; 31°06'N, 116°25'W; sounding, 37 fm; wind, 150°, force 2; weather, clear; sea, moderate; wire angle, 03°. 103.30

0	12.9	33.37	0	12.9	33.37	25.17	280	0.00
10	12.57	33.36	10	12.57	33.36	25.23	275	0.03
20	12.31	33.39	20	12.31	33.39	25.30	268	0.06
25	12.10	33.39	30	11.88	33.41	25.40	259	0.08
30	11.88	33.41	50	11.47	33.50	25.54	245	0.13
35	11.60	33.44						
40	11.50	33.48						
52	11.47	33.51						
62	11.42	33.53						

CREST; December 12, 1954; 1118 GCT; 30°45'N, 117°05.5'W; sounding, 960 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 11°. 103.40

0	17.2r	33.33	0	16.7	33.33	24.32	361	0.00
10	16.64	33.34	10	16.64	33.34	24.35	359	0.04
30	16.61	33.33	20	16.62	33.33	24.34	360	0.07
40	16.20	33.40	30	16.61	33.33	24.35	359	0.11
50	14.01	33.16	50	14.01	33.16	24.79	317	0.18
60	13.02	33.18	75	11.33	33.16	25.31	267	0.25
71	11.58	33.16	100	9.82	33.46	25.80	221	0.31
80	11.16	33.19	150	8.72	33.74	26.20	183	0.41
89	10.55	33.28	200	9.29	34.27	26.52	152	0.50
99	9.88	33.45	250	8.77	34.31	26.63	142	0.57
123	9.23	33.60	300	8.18	34.33	26.74	131	0.64
152	8.70	33.75	400	7.19	34.35	26.90	116	0.77
199	9.29	34.27	500	6.38	34.36	27.02	105	0.89
257	8.68	34.31	600	5.80	34.38	27.11	96	1.00
359	7.58	34.34						
476	6.55	34.36						
602	5.79	34.38						

CREST; December 13, 1954; 0003 GCT; 30°22'N, 116°19'W; sounding, 950 fm; wind, 220°, force 4; weather, clear; sea, moderate; wire angle, 20°. 107.35

0	17.2	33.45	0	17.2	33.45	24.30	363	0.00
10	17.10	33.48	10	17.10	33.48	24.35	359	0.04
28	16.81	33.48	20	16.99	33.48	24.37	357	0.07
38	16.17	33.40	30	16.75	33.48	24.43	351	0.11
47	15.61	33.32	50	15.42	33.29	24.58	337	0.18
56	13.64	33.21	75	11.50	33.27	25.36	262	0.25
65	12.99	33.21	100	10.06	33.45	25.75	225	0.31
73	11.64	33.26	150	9.12	33.86	26.23	180	0.42
83	11.25	33.27	200	9.14	34.12	26.43	161	0.50
91	10.54	33.39	250	8.76	34.35	26.67	138	0.58
113	9.62	33.51	300	8.38	34.36	26.73	132	0.65
139	9.14	33.80	400	7.54	34.35	26.85	121	0.78
183	9.18	34.00	500	6.57	34.34	26.98	109	0.90
237	8.88	34.34						
332	8.15	34.36						
446	7.06	34.34						
571	6.16	34.37						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm^3/g	ΔD dyn. m

110.33

CREST; December 14, 1954; 0449 GCT; 29°50'N, 115°52.5'W; sounding, 50 fm; wind, 320°, force 2; weather, clear; sea, rough; wire angle, 02°.

0	14.0	33.28	0	14.0	33.28	24.88	309	0.00
10	13.86	33.26	10	13.86	33.26	24.90	307	0.03
15	13.86	33.31	20	13.83	33.32	24.95	302	0.06
20	13.83	33.32	30	13.85	33.32	24.94	302	0.09
25	13.87	33.32	50	13.57	33.31	24.99	298	0.15
30	13.85	33.24u	75	12.05	33.30	25.28	270	0.22
36	13.84	33.26u						
46	13.66	33.32						
56	13.36	33.30						
66	12.71	33.32						
82	11.54	33.25						

110.40

CREST; December 13, 1954; 2345 GCT; 29°36'N, 116°19.5'W; sounding, 1150 fm; wind, 330°, force 4; weather, partly cloudy; sea, slight; wire angle, 21°.

0	17.5	33.48	0	17.5	33.48	24.25	368	0.00
10	17.42	33.53	10	17.42	33.53	24.31	362	0.04
24	17.35	33.45	20	17.37	33.48	24.28	365	0.07
47	15.32	33.32	30	17.32	33.44	24.26	367	0.11
56	14.12	33.30	50	14.79	33.31	24.74	321	0.18
67	12.64	33.37	75	12.32	33.45	25.35	263	0.25
75	12.32	33.45	100	10.21	33.42	25.70	230	0.31
93	10.56	33.40	150	8.89	33.77	26.19	184	0.42
116	9.69	33.56	200	8.43	33.99	26.44	160	0.51
144	8.98	33.74	250	8.01	34.08	26.57	148	0.59
190	8.51	33.95	300	7.62	34.14	26.68	137	0.66
253	8.00	34.08	400	6.91	34.29	26.89	117	0.79
349	7.20	34.22	500	6.49	34.36	27.01	106	0.91
468	6.62	34.34	600	5.69	34.39	27.13	94	1.02
639	5.39	34.40	700	5.04	34.41	27.22	86	1.11
850	4.48	34.44	800	4.63	34.43	27.29	79	1.20
1144	3.64	34.49	1000	4.01	34.47	27.39	70	1.37

110.60

CREST; December 13, 1954; 1258, 1341 GCT; 28°56.5'N, 117°39'W; sounding, 1930 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 18°, 24°.

0	16.9	33.42	0	16.9	33.42	24.35	359	0.00
10	16.81	33.43	10	16.81	33.43	24.38	356	0.04
25	16.80	33.39	20	16.80	33.41	24.36	358	0.07
50	13.52	33.18	30	16.79	33.38	24.34	359	0.11
59	12.38	33.21	50	13.52	33.18	24.90	306	0.17
68	11.64	33.30	75	10.91	33.35	25.53	246	0.24
77	10.80	33.36	100	10.12	33.58	25.84	217	0.30
95	10.25	33.54	150	9.14	33.94	26.29	174	0.40
118	9.65	33.69	200	8.57	34.11	26.51	153	0.48
144	9.22	33.90	250	8.64	34.31	26.66	139	0.56
188	8.58	34.06	300	8.32	34.35	26.74	131	0.63
			400	7.19	34.39	26.93	113	0.76
243	8.66	34.30	500	6.29	34.42	27.08	99	0.87
338	7.94	34.37	600	5.62	34.46	27.20	88	0.97
455	6.63	34.40	700	5.08	34.46	27.26	82	1.06
624	5.50	34.46	800	4.61	34.45	27.31	77	1.15
832	4.49	34.45	1000	4.00	34.52	27.43	66	1.31
1129	3.70	34.57						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} T_3 cm/g	dyn. m

PAOLINA-T; December 16, 1954; 1945 GCT; 29°07'N, 115°33'W; sounding, 600 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 05°. 113.35

0	16.0	33.46	0	16.0	33.46	24.58	337	0.00
10	15.86	33.43	10	15.86	33.43	24.59	336	0.03
30	15.45	33.45	20	15.82	33.44	24.61	334	0.07
46	12.25	33.36	30	15.45	33.45	24.70	325	0.10
57	11.00	33.27	50	11.76	33.32	25.35	263	0.16
67	10.31	33.32	75	10.00	33.41	25.73	227	0.22
77	9.98	33.45	100	10.72	33.97	26.04	198	0.27
87	10.30	33.70	150	10.70	34.36	26.35	168	0.37
102	10.72	34.00	200	10.27	34.45	26.50	154	0.45
112	10.57	34.09	250	9.65	34.44	26.59	146	0.53
137	10.78	34.28	300	8.93	34.40	26.68	137	0.60
166	10.52	34.42	400	7.83	34.42	26.86	120	0.74
220	10.11	34.46	500	6.77	34.41	27.01	106	0.86
284	9.14	34.40	600	5.93	34.43	27.13	94	0.96
399	7.84	34.42						
529	6.48	34.41						
667	5.54	34.45						

PAOLINA-T; December 16, 1954; 0955 GCT; 28°39'N, 116°36'W; sounding, 1900 fm; wind, 320°, force 3; weather, cloudy; sea, missing; wire angle, 00°. 113.50

0	17.4	33.53	0	17.4	33.53	24.31	362	0.00
10	17.34	33.52	10	17.34	33.52	24.32	361	0.04

PAOLINA-T; December 16, 1954; 0350 GCT; 28°24'N, 117°15'W; sounding, 2060 fm; wind, 360°, force 4; weather, cloudy; sea, moderate; wire angle, 15°. 113.60

0	17.6	33.46	0	17.6	33.46	24.21	372	0.00
10	17.57	33.42	10	17.57	33.42	24.19	374	0.04
30	17.26	33.37	20	17.43	33.40	24.21	372	0.08
44	16.78	33.34	30	17.26	33.37	24.22	371	0.11
54	16.80	33.32	50	16.79	33.33	24.30	363	0.18
63	15.52	33.21	75	13.77	33.18	24.85	311	0.27
72	14.00	33.18	100	12.02	33.23	25.23	275	0.34
82	13.31	33.22	150	10.30	34.02	26.16	186	0.46
97	12.32	33.22	200	9.30	34.13	26.41	163	0.55
105	11.16	33.27	250	8.55	34.23	26.61	144	0.63
129	10.88	33.83	300	8.20	34.31	26.72	133	0.70
158	10.48	34.05	400	7.34	34.38	26.90	116	0.83
209	8.96	34.15	500	6.50	34.39	27.03	104	0.95
271	8.41	34.27	600	5.79	34.43	27.15	92	1.05
382	7.50	34.37						
510	6.42	34.40						
645	5.51	34.45						

PAOLINA-T; December 15, 1954; 0320 GCT; 28°48'N, 114°56'W; sounding, 55 fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 08°. 117.30

0	16.2r	33.23	0	16.0	33.23	24.41	353	0.00
10	15.76	33.33	10	15.76	33.33	24.54	340	0.04
20	15.66	33.31	20	15.66	33.31	24.55	340	0.07
30	15.60	33.35	30	15.60	33.35	24.59	336	0.10
40	13.48	33.31	50	13.08	33.50	25.24	274	0.16
50	13.08	33.50	75	11.36	33.67	25.70	230	0.23
61	12.30	33.60	100	(10.97)	(33.73)	(25.81)	(220)	(0.28)
76	11.30	33.68						
92	11.04	33.72						

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OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

117.40

PAOLINA-T; December 15, 1954; 1027, 1055 GCT; 28°29'N, 115°37'W; sounding, 550 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 02°, 02°.

0	16.2	33.33	0	16.2	33.33	24.44	350	0.00
10	16.10	33.38	10	16.10	33.38	24.50	344	0.04
30	16.08	33.32	20	16.09	33.35	24.48	346	0.07
40	15.86	33.37	30	16.08	33.32	24.46	348	0.10
50	14.99	33.30	50	14.99	33.30	24.69	326	0.17
61	13.34	33.24	75	12.11	33.25	25.23	275	0.25
72	12.34	33.23	100	11.23	33.81	25.83	218	0.31
82	11.50	33.37	150	10.95	34.17	26.16	186	0.41
92	11.31	33.53	200	10.62	34.46	26.44	160	0.50
102	11.22	33.83	250	10.10	34.52	26.58	146	0.58
127	11.07	33.99	300	9.46	34.49	26.66	139	0.65
157	10.90	34.22	400	8.21	34.38	26.78	128	0.79
207	10.57	34.48	500	7.00	34.38	26.95	111	0.92
267	9.91	34.52	600	6.33	34.37	27.03	104	1.04
374	8.60	34.39						
496	7.04	34.38						
623	6.24	34.37						

117.60

PAOLINA-T; December 15, 1954; 2205 GCT; 27°54'N, 116°51'W; sounding, 1950 fm; wind, 340°, force 2; weather, cloudy; sea, moderate; wire angle, 00°.

0	18.2	33.58	0	18.2	33.58	24.16	377	0.00
10	18.04	33.59	10	18.04	33.59	24.20	373	0.04

120.25

PAOLINA-T; December 14, 1954; 1915 GCT; 28°22'N, 114°17'W; sounding, 45 fm; wind, 170°, force 2; weather, clear; sea, slight; wire angle, 00°.

0	16.8	33.46	0	16.8	33.46	24.40	354	0.00
10	16.57	33.50	10	16.57	33.50	24.48	346	0.04
15	16.56	33.48	20	16.53	33.47	24.47	347	0.07
26	16.50	33.46	30	16.00	33.46	24.58	337	0.10
37	14.68	33.47	50	13.07	33.26	25.05	292	0.16
47	13.03	33.23	75	11.73	33.39	25.41	258	0.23
57	12.92	33.48						
67	12.35	33.38						
77	11.56	33.39						

120.35

PAOLINA-T; December 14, 1954; 1318 GCT; 28°03'N, 114°50'W; sounding, 46 fm; wind, 340°, force 3; weather, clear; sea, slight; wire angle, 00°.

0	17.2	33.51	0	17.2	33.51	24.34	360	0.00
10	17.20	33.51	10	17.20	33.51	24.34	360	0.04
15	17.17	33.51	20	17.10	33.52	24.38	356	0.07
20	17.10	33.52	30	17.12	33.51	24.36	358	0.11
30	17.12	33.51	50	16.79	33.46	24.40	354	0.18
41	17.10	33.51						
52	16.67	33.45						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

PAOLINA-T; December 13, 1954; 2320 GCT; 27°32'N, 115°57'W; sounding, 1850 fm; wind, 330°, force 4; weather, partly cloudy; sea, moderate; wire angle, 20°. 120.50

0	18.1	33.53	0	18.1	33.53	24.14	379	0.00
10	18.00	33.52	10	18.00	33.52	24.16	377	0.04
30	17.88	33.50	20	17.97	33.51	24.16	377	0.08
44	17.62	33.44	30	17.88	33.50	24.17	376	0.11
54	15.28	33.22	50	15.33	33.27	24.59	336	0.18
63	14.76	33.40	75	12.62	33.25	25.13	284	0.26
72	12.94	33.24	100	11.41	33.69	25.70	230	0.33
81	12.13	33.39	150	10.83	34.17	26.18	184	0.43
95	11.20	33.54	200	9.97	34.26	26.40	164	0.52
104	11.57	33.78	250	10.00	34.47	26.56	148	0.60
128	10.56	33.89	300	9.42	34.45	26.64	141	0.68
154	10.84	34.19	400	7.93	34.37	26.81	125	0.82
204	9.98	34.26	500	7.00	34.37	26.94	112	0.94
263	9.96	34.48	600	6.10	34.40	27.09	98	1.06
366	8.32	34.38						
489	7.10	34.37						
625	5.90	34.41						

PAOLINA-T; December 13, 1954; 0920 GCT; 26°49'N, 117°08'W; sounding, 2000 fm; wind, 330°, force 4; weather, clear; sea, rough; wire angle, 26°. 120.70

0	18.0	33.49	0	18.0	33.49	24.14	379	0.00
10	18.00	33.54	10	18.00	33.54	24.18	375	0.04
24	18.01	33.55	20	18.02	33.55	24.18	375	0.08
51	16.53	33.38	30	18.01	33.54	24.17	376	0.11
60	14.65	33.28	50	16.73	33.39	24.36	358	0.19
69	13.32	33.31	75	12.80	33.36	25.18	280	0.27
82	12.25	33.41	100	11.00	33.59	25.70	230	0.33
98	11.08	33.58	150	9.91	34.16	26.33	170	0.43
121	10.13	33.78	200	9.36	34.22	26.47	157	0.52
146	9.87	34.15	250	8.58	34.27	26.63	142	0.59
194	9.45	34.22	300	8.07	34.33	26.76	129	0.66
261	8.44	34.28	400	7.27	34.42	26.95	111	0.79
355	7.62	34.40	500	6.56	34.44	27.06	101	0.90
481	6.68	34.44	600	5.87	34.47	27.17	91	1.01
650	5.57	34.48	700	5.30	34.50	27.27	81	1.10
865	4.54	34.59	800	4.81	34.55	27.36	73	1.18

PAOLINA-T; December 12, 1954; 1911, 2010 GCT; 26°17'N, 118°24'W; sounding, 2350 fm; wind, 360°, force 5; weather, partly cloudy; sea, rough; wire angle, 12°, 17°. 120.90

0	18.6	33.48	0	18.6	33.48	23.98	394	0.00
10	18.55	33.50	10	18.55	33.50	24.01	391	0.04
25	18.54	33.48	20	18.54	33.48	24.00	392	0.08
55	18.53	33.48	30	18.53	33.48	24.00	392	0.12
65	17.00	33.35	50	18.53	33.48	24.00	392	0.20
75	14.56	33.17	75	14.56	33.17	24.68	327	0.29
90	13.40	33.30	100	12.64	33.30	25.17	280	0.36
109	11.88	33.30	150	10.06	33.67	25.92	209	0.49
132	10.17	33.44	200	10.19	34.19	26.31	172	0.58
163	10.05	33.83	250	9.87	34.34	26.48	156	0.67
215	10.21	34.28	300	9.28	34.37	26.60	145	0.75
294	9.43	34.38	400	8.50	34.38	26.73	132	0.89
403	8.52	34.33	500	7.19	34.35	26.90	116	1.02
			600	6.25	34.35	27.03	104	1.14
291a)	9.26	34.36	700	5.59	34.40	27.15	92	1.25
398	8.41	34.43	800	5.03	34.45	27.26	82	1.34
540	6.72	34.34	1000	4.24	34.48	27.37	72	1.52
732	5.41	34.42						
969	4.35	34.48						
1282	3.48	34.49						

a) Overlapping casts; reconciliation of property curves when necessary.

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5412

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

123.40 PAOLINA-T; December 11, 1954; 1303, 1339 GCT; 27°18'N, 114°53'W; sounding, 331 fm; wind, 360°, force 5; weather, cloudy; sea, rough; wire angle, 15°, 22°.

0	18.5	33.79	0	18.5	33.79	24.24	369	0.00
10	18.46	33.74	10	18.46	33.74	24.21	372	0.04
30	14.37	33.19	20	18.42	33.72	24.21	372	0.07
40	12.94	33.15	30	14.37	33.19	24.73	322	0.11
49	12.24	33.20	50	12.14	33.21	25.19	279	0.17
59	11.10	33.31	75	10.84	33.63	25.76	224	0.23
69	10.76	33.40	100	12.04	34.28	26.04	198	0.29
79	11.02	33.79	150	11.44	34.52	26.34	169	0.38
89	11.98	34.19	200	10.83	34.60	26.51	153	0.46
98	12.04	34.25	250	9.93	34.50	26.59	146	0.54
123	11.91	34.54	300	9.13	34.48	26.71	134	0.61
151	11.43	34.52	400	7.99	34.45	26.86	120	0.74
200	10.88	34.61	500	7.02	34.42	26.98	109	0.87
259	9.83	34.48	600	(6.08)	(34.42)	(27.11)	(96)	(0.98)
194a)	10.88	34.60						
250	9.88	34.51						
352	8.46	34.47						
468	7.37	34.42						
591	6.16	34.42						

123.55 PAOLINA-T; December 11, 1954; 2347 GCT; 26°53'N, 115°50'W; sounding, 2000 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 10°.

0	17.7	33.67	0	17.7	33.67	24.35	359	0.00
10	17.68	33.69	10	17.68	33.69	24.37	357	0.04
30	17.51	33.63	20	17.63	33.66	24.36	358	0.07
45	14.72	33.45	30	17.51	33.63	24.36	358	0.11
55	13.71	33.40	50	14.18	33.42	24.95	301	0.17
65	12.86	33.40	75	11.79	33.58	25.55	244	0.24
75	11.79	33.58	100	11.15	33.80	25.83	218	0.30
85	11.67	33.57	150	11.42	34.46	26.30	173	0.40
99	11.14	33.78	200	10.14	34.41	26.49	155	0.48
110	11.46	34.07	250	9.21	34.36	26.60	145	0.56
133	11.52	34.33	300	8.55	34.37	26.72	133	0.63
164	11.25	34.50	400	7.44	34.43	26.93	113	0.76
216	9.78	34.38	500	6.55	34.44	27.06	101	0.87
280	8.81	34.36	600	5.92	34.44	27.14	93	0.97
394	7.50	34.43						
524	6.38	34.44						
660	5.62	34.44						

127.34 PAOLINA-T; December 11, 1954; 0343 GCT; 26°56'N, 114°09'W; sounding, 50 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 09°.

0	19.7	33.88	0	19.7	33.88	24.01	391	0.00
5	19.76	33.89	10	19.76	33.88	23.99	393	0.04
10	19.76	33.88	20	19.66	33.91	24.04	388	0.08
15	19.76	33.93	30	17.56	33.68	24.39	325	0.12
20	19.66	33.91						
25	19.17	33.87						
30	17.56	33.68						
35	15.94	33.48						
45	14.56	33.59						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

PAOLINA-T; December 10, 1954; 1732 GCT; 26°23'N, 115°03'W; sounding, 3350 fm; wind, 330°, force 4; weather, overcast; sea, rough; wire angle, 13°. 127.50

0	19.6	33.84	0	19.6	33.84	24.00	392	0.00
10	19.60	33.76	10	19.60	33.76	23.94	398	0.04
30	19.60	33.67	20	19.60	33.73	23.92	400	0.08
45	14.92	33.33	30	19.60	33.67	23.87	404	0.12
55	13.55	-	50	14.10	33.32	24.89	307	0.19
65	12.64	33.36	75	11.86	33.57	25.53	246	0.26
75	11.86	33.57	100	11.24	33.81	25.83	218	0.32
85	11.56	33.58	150	10.81	34.31	26.29	174	0.42
99	11.26	33.80	200	10.93	34.52	26.43	161	0.50
109	11.16	33.85	250	10.21	34.53	26.57	148	0.58
133	10.83	34.12	300	9.38	34.55	26.72	133	0.66
162	11.06	34.42	400	7.89	34.56	26.97	110	0.78
215	10.74	34.53	500	6.92	34.45	27.02	105	0.90
279	9.72	34.54	600	6.13	34.44	27.12	95	1.01
393	7.97	34.56						
523	6.74	34.44						
660	5.73	34.44						

PAOLINA-T; December 9, 1954; 0842 GCT; 26°31'N, 113°26'W; sounding, 44 fm; wind, 020°, force 2; weather, clear; sea, slight; wire angle, 00°. 130.30

0	19.7	33.96	0	19.7	33.96	24.07	385	0.00
10	19.66	33.93	10	19.66	33.93	24.06	386	0.04
15	19.68	33.93	20	19.66	33.97	24.09	383	0.08
20	19.66	33.97	30	19.65	33.95	24.07	385	0.12
25	19.66	33.93	50	19.50	33.95	24.11	382	0.19
30	19.65	33.95						
35	19.62	33.95						
40	19.59	33.97						
51	19.49	33.95						

PAOLINA-T; December 9, 1954; 1620, 1721 GCT; 26°11'N, 114°08'W; sounding, 1400 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 07°, 06°. 130.40

0	20.1	33.70	0	20.1	33.70	23.77	414	0.00
10	19.85	33.78	10	19.85	33.78	23.89	402	0.04
25	19.85	33.64	20	19.85	33.70	23.83	408	0.08
55	15.62	33.26	30	19.85	33.60	23.76	415	0.12
65	14.48	33.27	50	16.71	33.31	24.31	362	0.20
75	12.97	33.42	75	12.97	33.42	25.20	278	0.28
91	12.23	33.61	100	11.96	33.76	25.65	235	0.35
111	11.66	33.92	150	10.51	34.15	26.22	181	0.45
136	10.85	34.03	200	10.32	34.48	26.51	153	0.54
166	10.27	34.28	250	9.93	34.53	26.62	143	0.61
222	10.31	34.52	300	9.17	34.52	26.74	131	0.68
303	9.12	34.52	400	8.00	34.47	26.88	118	0.82
414	7.84	34.46	500	6.89	34.43	27.01	106	0.94
559	6.40	34.42	600	6.06	34.44	27.12	95	1.04
758	5.20	34.46	700	5.48	34.47	27.22	86	1.14
			800	4.98	34.49	27.30	78	1.23
554a)	6.34	34.44	1000	4.20	34.52	27.41	68	1.40
749	5.18	34.50						
991	4.22	34.52						
1307	3.46	34.58						

a) Overlapping casts; reconciliation of property curves when necessary.

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

130.60

PAOLINA-T; December 10, 1954; 0620 GCT; 25°29'N, 115°23'W; sounding, 3350 fm; wind, 320°, force 2; weather, cloudy; sea, slight; wire angle, 14°.

0	19.6	33.71	0	19.6	33.71	23.90	402	0.00
10	19.42	33.74	10	19.42	33.74	23.97	395	0.04
25	19.41	33.79	20	19.41	33.78	24.01	391	0.08
54	14.81	33.33	30	19.40	33.78	24.01	391	0.12
65	12.92	33.23	50	16.31	33.40	24.47	347	0.19
74	12.18	33.31	75	12.11	33.32	25.29	269	0.27
88	11.00	33.40	100	10.47	33.50	25.72	228	0.33
107	10.38	33.61	150	10.18	34.10	26.24	179	0.44
130	10.27	33.84	200	9.97	34.44	26.54	150	0.52
157	10.14	34.21	250	9.30	34.41	26.63	142	0.60
209	9.90	34.45	300	8.59	34.39	26.73	132	0.67
286	8.78	34.39	400	7.51	34.42	26.91	115	0.80
391	7.60	34.42	500	6.64	34.41	27.02	105	0.91
531	6.41	34.41	600	5.97	34.42	27.12	95	1.02
720	5.30	34.44	700	5.42	34.44	27.20	88	1.12
954	4.30	34.50	800	4.92	34.45	27.27	81	1.21
1265	3.48	34.53	1000	4.15	34.51	27.40	69	1.38

133.30

PAOLINA-T; December 9, 1954; 0245 GCT; 25°54'N, 113°07'W; sounding, 106 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 07°.

0	19.6	33.84	0	19.6	33.84	24.00	392	0.00
10	19.54	33.86	10	19.54	33.86	24.03	389	0.04
15	19.55	33.86	20	19.50	33.86	24.04	388	0.08
20	19.50	33.86	30	19.09	33.80	24.10	382	0.12
25	19.42	33.84	50	14.81	33.60	24.95	301	0.18
30	19.09	33.80	75	11.87	33.51	25.48	251	0.25
35	16.40	33.58	100	11.27	33.79	25.81	220	0.31
46	15.54	33.65	150	12.21	34.55	26.22	181	0.42
56	13.58	33.44						
66	12.52	33.39						
82	11.53	33.65						
101	11.27	33.80						
121	12.74	34.39						
155	12.10	34.57						

137.23

PAOLINA-T; December 8, 1954; 1718 GCT; 25°37'N, 112°20'W; sounding, 40 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 00°.

0	20.9	33.87	0	20.9	33.87	23.68	422	0.00
5	20.84	33.86	10	20.82	33.87	23.70	421	0.04
10	20.82	33.87	20	20.82	33.87	23.70	421	0.08
15	20.82	33.87	30	20.50	33.90	23.81	410	0.13
20	20.82	33.87	50	15.31	33.39	24.68	327	0.20
25	20.80	33.92						
30	20.50	33.90						
41	17.75	33.66						
51	15.07	33.36						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

PAOLINA-T; December 8, 1954; 0416 GCT; 24°37'N, 112°43'W; sounding, 525 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 08°. 140.35

0	23.1	34.35	0	23.1	34.35	23.43	446	0.00
10	22.44	34.17	10	22.44	34.17	23.49	441	0.04
30	21.01	33.84	20	21.14	33.82	23.58	432	0.09
46	17.57	33.48	30	21.01	33.84	23.63	427	0.13
56	16.80	33.84	50	16.95	33.61	24.48	346	0.21
67	15.22	33.93	75	15.00	34.12	25.31	267	0.29
77	14.97	34.16	100	13.62	34.23	25.69	231	0.35
87	14.40	34.27	150	12.31	34.50	26.16	186	0.45
101	13.58	34.23	200	11.57	34.62	26.39	164	0.54
111	12.82	34.14	250	10.76	34.65	26.57	148	0.62
135	12.44	34.39	300	10.05	34.64	26.68	137	0.70
165	12.17	34.57	400	8.52	34.54	26.85	121	0.83
224	11.13	34.64	500	7.17	34.51	27.03	104	0.95
283	10.33	34.65	600	6.31	34.50	27.14	93	1.06
399	8.54	34.54						
529	6.88	34.51						
665	5.92	34.49						

PAOLINA-T; December 7, 1954; 1447 GCT; 24°14'N, 112°04'W; sounding, 115 fm; wind, calm; weather, cloudy; sea, slight; wire angle, 00°. 143.30

0	22.7	34.27	0	22.7	34.27	23.49	441	0.00
10	22.68	34.32	10	22.68	34.32	23.53	437	0.04
15	22.68	34.29	20	22.69	34.29	23.51	439	0.09
21	22.70	34.41u	30	22.70	34.27	23.49	441	0.13
25	22.68	34.26	50	21.49	34.15	23.73	418	0.22
32	22.71	34.28	75	14.17	33.99	25.39	260	0.30
37	22.68	34.29	100	14.13	34.44	25.75	225	0.36
47	22.08	34.22	150	12.99	34.61	26.11	191	0.47
57	19.55	33.96						
67	15.98	33.90						
82	14.46	34.11						
102	14.10	34.46						
122	13.58	34.58						
157	12.87	34.61						

PAOLINA-T; December 7, 1954; 0540 GCT; 23°58'N, 111°01'W; sounding, 53 fm; wind, 300°, force 1; weather, clear; sea, missing; wire angle, 00°. 147.20

0	22.9	34.27	0	22.9	34.27	23.43	446	0.00
10	22.90	34.31	10	22.90	34.31	23.46	444	0.04
15	22.92	34.28	20	22.88	34.19	23.38	451	0.09
20	22.88	34.19	30	22.05	34.17	23.59	431	0.13
26	22.74	34.22	50	19.67	34.02	24.12	380	0.22
31	21.86	34.10	75	(16.41)	(34.15)	(25.02)	(295)	(0.30)
37	20.89	34.05						
47	19.99	34.02						
57	18.76	34.01						
72	16.54	34.14						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

147.30

PAOLINA-T; December 6, 1954; 2230 GCT; 23°35'N, 111°47'W; sounding, 200 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 05°.

0	24.0	34.34	0	24.0	34.34	23.16	472	0.00
10	23.62	34.33	10	23.62	34.33	23.27	462	0.05
15	23.60	34.33	20	23.62	34.32	23.26	463	0.09
20	23.62	34.32	30	23.56	34.35	23.30	459	0.14
25	23.58	34.33	50	21.42	34.07	23.69	422	0.23
30	23.56	34.35	75	15.54	33.75	24.91	305	0.32
35	23.56	34.32	100	12.74	34.27	25.90	211	0.38
45	23.30	34.27	150	11.90	34.45	26.20	183	0.48
55	19.80	33.91	200	11.26	34.64	26.47	157	0.57
70	16.10	33.72	250	10.66	34.57	26.52	152	0.65
85	14.73	33.98						
105	12.92	34.29						
134	11.75	34.29						
169	12.02	34.64						
204	11.20	34.64						
254	10.63	34.56						

150.25

PAOLINA-T; December 6, 1954; 1205 GCT; 23°14'N, 111°02'W; sounding, 600 fm; wind, 330°, force 3; weather, clear; sea, slight; wire angle, 12°.

0	23.2	34.28	0	23.2	34.28	23.35	454	0.00
10	23.24	34.28	10	23.24	34.28	23.34	455	0.04
30	23.20	34.33	20	23.22	34.31	23.37	452	0.09
40	23.02	34.25	30	23.20	34.33	23.39	450	0.14
50a)	18.32	33.86	50	18.32	33.86	24.34	360	0.22
60a)	16.77	33.92	75	14.33	33.96	25.33	265	0.30
70a)	15.42	33.84	100	13.36	34.31	25.81	220	0.36
74	14.40	33.95	150	12.40	34.65	26.26	177	0.46
84	14.10	34.04	200	11.83	34.69	26.40	164	0.54
93	13.62	34.22	250	10.97	34.64	26.52	152	0.63
117	12.92	34.46	300	10.12	34.60	26.64	141	0.70
145	12.45	34.64	400	8.59	34.54	26.84	122	0.84
193	11.92	34.69	500	7.29	34.52	27.02	105	0.96
251	10.94	34.64	600	(6.40)	(34.51)	(27.14)	(93)	(1.07)
352	9.31	34.56						
470	7.63	34.52						
594	6.44	34.51						

153.16

PAOLINA-T; December 6, 1954; 0109 GCT; 22°54'N, 110°06'W; sounding, 200 fm; wind, 300°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	24.5	34.28	0	24.5	34.28	22.97	490	0.00
10	23.96	34.28	10	23.96	34.28	23.13	475	0.05
15	23.93	34.29	20	23.94	34.36	23.20	468	0.10
20	23.94	34.36	30	23.89	34.36	23.21	467	0.14
25	23.92	34.39	50	19.72	33.91	24.02	390	0.23
30	23.89	34.36	75	15.38	33.82	25.00	297	0.32
36	23.88	34.40	100	13.71	34.11	25.58	242	0.38
46	20.54	33.93	150	12.17	34.50	26.19	184	0.49
57	18.96	33.88	200	11.64	34.63	26.39	164	0.58
72	15.80	33.81	250	10.58	34.66	26.61	144	0.66
87	14.19	33.96						
107	13.49	34.18						
137	12.32	34.42						
172	11.98	34.60						
207	11.54	34.63						
259	10.40	34.66						

a) Possible pretrip; depths may be slightly in error.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m

PAOLINA-T; December 5, 1954; 1600 GCT; 22°25'N, 111°02'W; sounding, 1950 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 05°. 153.30

0	25.8	34.60	0	25.8	34.60	22.82	504	0.00
10	25.92	34.60	10	25.92	34.60	22.78	508	0.05
30	25.92	34.62	20	25.92	34.61	22.79	507	0.10
46	25.88	34.60	30	25.92	34.62	22.79	507	0.15
56	21.28	34.29	50	23.71	34.47	23.35	454	0.25
67	19.20	34.42	75	17.55	34.38	24.93	303	0.34
77	17.12	34.37	100	14.18	34.50	25.78	222	0.41
87	15.40	34.34	150	12.94	34.70	26.19	184	0.51
102	14.17	34.51	200	11.60	34.61	26.38	166	0.60
112	14.24	34.52	250	10.90	34.59	26.49	155	0.69
137	13.62	34.77	300	10.17	34.57	26.61	144	0.76
166	12.21	34.64	400	8.68	34.50	26.80	126	0.90
221	11.30	34.60	500	7.55	34.45	26.93	113	1.03
285	10.42	34.58	600	6.70	34.45	27.05	102	1.15
400	8.68	34.50						
531	7.26	34.45						
669	6.21	34.45						

PAOLINA-T; December 4, 1954; 2045 GCT; 22°35'N, 109°19'W; sounding, 1500 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 00°. 157.10

0	26.0	34.67	0	26.0	34.67	22.81	506	0.00
10	25.62	34.66	10	25.62	34.66	22.92	495	0.05
30	25.58	34.64	20	25.60	34.65	22.91	496	0.10
41	25.50	34.78	30	25.58	34.64	22.91	496	0.15
51	25.31	34.76	50	25.34	34.77	23.09	479	0.25
61	24.99	-	75	18.97	34.12	24.38	356	0.35
70	20.36	34.15	100	15.98	34.58	25.45	254	0.43
80	18.01	34.11	150	13.47	34.75	26.12	190	0.54
90	16.62	34.34	200	12.25	34.80	26.40	164	0.63
100	15.98	34.58	250	11.40	34.73	26.51	153	0.71
125	14.19	34.67	300	10.69	34.71	26.62	143	0.79
155	13.33	34.77						
204	12.17	34.80						
263	11.20	34.72						
369	9.83	34.69						

PAOLINA-T; December 5, 1954; 0325 GCT; 22°15'N, 110°04'W; sounding, 1750 fm; wind, calm; weather, clear; sea, slight; wire angle, 05°. 157.20

0	26.5	34.70	0	26.5	34.70	22.67	519	0.00
10	26.34	34.70	10	26.34	34.70	22.72	514	0.05
31	26.42	34.80	20	26.41	34.74	22.73	513	0.10
42	26.18	34.80	30	26.42	34.80	22.77	510	0.15
52	21.38	34.13	50	22.26	34.26	23.60	430	0.25
62	18.16	33.79	75	16.41	34.12	25.00	297	0.34
72	17.08	34.10	100	14.67	34.69	25.82	219	0.40
82	15.12	34.15	150	13.28	34.84	26.23	180	0.51
92	15.23	34.64	200	12.42	34.82	26.39	164	0.60
102	14.58	34.70	250	11.53	34.75	26.50	154	0.68
127	13.70	34.76	300	10.72	34.69	26.60	145	0.76
157	13.16	34.85	400	9.10	34.62	26.82	124	0.90
206	12.32	34.81	500	7.66	34.56	27.00	107	1.02
265	11.31	34.73	600	6.79	34.53	27.10	97	1.13
370	9.64	34.64						
490	7.78	34.57						
616	6.68	34.53						

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OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
PAOLINA-T; December 5, 1954; 0947 GCT; 21°52'N, 110°38'W; sounding, 1800 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 00°.								
0	26.3	34.62	0	26.3	34.62	22.67	519	0.00
10	26.26	34.65	10	26.26	34.65	22.71	515	0.05
30	26.31	34.70	20	26.30	34.68	22.72	514	0.10
47	20.88	34.22	30	26.31	34.70	22.73	513	0.16
57	17.88	34.06	50	19.79	34.16	24.20	373	0.24
67	16.11	33.98	75	14.46	33.46	24.92	304	0.33
77	14.14	33.45	100	12.81	34.10	25.75	225	0.40
87	13.18	34.01	150	12.43	34.68	26.28	175	0.50
102	12.78	34.11	200	11.52	34.69	26.46	158	0.58
112	12.66	34.31	250	10.76	34.70	26.60	145	0.66
137	12.70	34.67	300	9.88	34.69	26.75	130	0.73
167	12.05	34.68	400	8.52	34.59	26.89	117	0.86
222	11.20	34.70						
287	10.12	34.70						
402	8.48	34.59						

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
80.51-C	XII-2	2015	34°27.5'	120°33.0'	46	100°	4	cloudy	rough	14.58	33.42
80.60-C	3	0215	34°09.0'	121°09.0'	1200	140°	4	cloudy	rough	13.76	33.45
80.80-C	3	1315	33°33.0'	122°31.0'	2170	200°	3	sky obscured	moderate	15.08	33.12
83.40-C	5	0015	34°14.0'	119°21.5'	12	290°	3	partly cloudy	slight	15.64	33.39
83.48-C	4	1600	33°58.0'	119°54.5'	140	300°	3	clear	smooth	14.98	33.40
83.55-C	4	1035	33°43.5'	120°24.0'	540	270°	4	missing	rough	14.90	33.33
85.40-C	5	0515	33°57.5'	119°10.5'	400	300°	4	missing	moderate	15.68	33.38
85.50-C	5	1145	33°37.0'	119°52.0'	170	280°	3	clear	smooth	15.44	33.44
85.60-C	5	1735	33°17.0'	120°33.5'	750	240°	3	cloudy	moderate	16.14	33.42
87.35-C	6	1230	33°51.0'	118°38.5'	320	280°	3	fog	moderate	16.02	33.43
87.45-C	6	0525	33°30.0'	119°18.5'	900	280°	5	clear	moderate	15.12	33.42
87.55-C	5	2330	33°10.0'	120°00.5'	250	320°	4	partly cloudy	moderate	15.29	33.40
90.30-C	6	1950	33°24.5'	117°55.0'	320	270°	2	cloudy	slight	16.02	33.48
90.45-C	7	1640	32°55.0'	118°56.0'	950	300°	6	partly cloudy	rough	16.66	33.48
90.60-C	8	0130	32°25.0'	119°56.0'	475	320°	6	partly cloudy	rough	15.67	33.45
93.27-C	9	0750	32°56.0'	117°19.0'	200	280°	1	overcast	slight	15.92	33.41
93.40-C	9	0000	32°30.0'	118°12.5'	820	310°	2	partly cloudy	moderate	16.61	33.40
97.30-C	9	1345	32°15.0'	117°08.5'	30	350°	1	fog	slight	15.88	33.43
97.32-C	9	1500	32°11.5'	117°16.0'	368	360°	1	drizzle	slight	16.92	33.48

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
97.50-C	XII-10	0000	31°34.5'	118°29.0'	1300	170°	4	overcast	slight	15.62	33.45
100.30-C	12	0300	31°40.5'	116°46.5'	250	360°	3	clear	slight	12.40	33.36
100.40-C	11	2215	31°23.5'	117°26.0'	1050	340°	2	partly cloudy	moderate	16.24	33.44
100.60-C	11	1115	30°42.5'	118°44.5'	1600	320°	4	cloudy	rough	16.31	33.47
100.80-C	11	0000	30°00.0'	120°03.0'	2250	320°	5	partly cloudy	very rough	17.30	33.27
103.35-C	12	1425	30°55.0'	116°45.0'	1100	020°	1	clear	moderate	14.64	33.30
107.32-C	12	2200	30°26.0'	116°11.0'	285	180°	2	clear	slight	17.03	33.47
107.40-C	13	0330	30°10.0'	116°43.0'	1550	350°	2	clear	smooth	17.26	33.44
110.35-C	14	0320	29°46.0'	116°00.0'	650	320°	4	clear	slight	15.36	33.38
110.50-C	13	1850	29°17.5'	117°00.0'	1630	180°	4	partly cloudy	moderate	17.15	33.40
113.30-P	16	2310	29°23.0'	115°19.0'	35	320°	4	cloudy	moderate	16.38	33.47
113.40-P	16	1600	28°56.0'	115°55.0'	850	330°	4	cloudy	moderate	17.12	33.42
117.26-P	15	0040	28°56.0'	114°40.0'	42	320°	3	clear	slight	17.46	33.59
117.35-P	15	0650	28°39.0'	115°16.0'	138	320°	3	missing	slight	16.40	33.40
117.50-P	15	1650	28°09.0'	116°16.0'	2200	320°	2	cloudy	slight	17.28	33.44
120.30-P	14	1700	28°15.0'	114°28.0'	50	040°	4	clear	slight	17.40	33.55
120.40-P	14	0910	27°56.0'	115°17.0'	34	340°	5	missing	slight	16.70	33.61
120.45-P	14	0530	27°42.0'	115°32.0'	1600	030°	3	missing	slight	17.89	33.79
120.60-P	13	1725	27°08.0'	116°25.0'	2000	330°	4	partly cloudy	moderate	16.78	33.63

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
120.80-P	XII-13	0200	26°29.0'	117°53.0'	2200	020°	4	partly cloudy	rough	18.53	33.53
123.37-P	11	1000	27°24.0'	114°40.0'	38	320°	4	cloudy	slight	18.76	33.94
123.45-P	11	1650	27°11.0'	115°12.0'	2250	020°	5	cloudy	very rough	18.09	33.77
123.50-P	11	2005	27°03.0'	115°32.0'	2000	360°	4	cloudy	very rough	17.78	33.70
127.40-P	11	0000	26°45.0'	114°30.0'	1650	320°	5	cloudy	rough	19.52	33.78
127.45-P	10	2025	26°30.0'	114°48.0'	1750	320°	4	overcast	moderate	19.60	33.77
127.55-P	10	1335	26°12.0'	115°22.0'	1995	320°	4	cloudy	moderate	18.04	33.55
130.35-P	9	1220	26°21.0'	113°48.0'	500	320°	3	partly cloudy	moderate	19.53	33.75
130.50-P	10	0000	25°48.0'	114°44.0'	2000	340°	3	cloudy	rough	19.94	33.82
133.25-P	8	2245	26°03.0'	112°48.0'	45	320°	4	cloudy	rough	20.21	33.83
137.30-P	8	1310	25°24.0'	112°41.0'	106	320°	3	partly cloudy	rough	20.65	33.77
140.30-P	8	0730	24°47.0'	112°25.0'	53	040°	2	clear	moderate	21.44	34.01
140.40-P	8	0040	24°26.0'	113°02.0'	1700	320°	4	cloudy	rough	22.98	34.34
143.26-P	7	1200	24°18.0'	111°48.0'	48	320°	1	missing	slight	23.56	34.49
143.35-P	7	1815	24°00.0'	112°25.0'	1350	300°	2	cloudy	rough	23.85	34.38
147.25-P	7	0230	23°48.0'	111°22.0'	324	320°	4	missing	moderate	23.32	34.31
150.19-P	6	0745	23°24.0'	110°39.0'	130	320°	3	clear	slight	23.66	34.42
150.30-P	6	1600	23°02.0'	111°18.0'	1300	320°	3	clear	slight	23.74	34.39
153.20-P	5	2300	22°49.0'	110°17.0'	200	270°	1	clear	moderate	23.92	34.31

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OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

HORIZON; July 25-26, 1954; 2147, 0015, 0316 GCT; 31°13.5'N, 135°46'W; sounding, 2680 fm; wind, 070°, force 4; weather, overcast; sea, rough; wire angle, 22°, 20°, 18°.

0	20.35	34.37	24.21	372	0	20.35	34.37	24.21	372	0.00
10	20.28	34.38	24.24	369	10	20.28	34.38	24.24	369	0.04
28	20.31	34.40	24.24	369	20	20.29	34.39	24.24	369	0.07
52	17.82	34.14	24.68	327	30	20.31	34.40	24.24	369	0.11
67	17.22	34.18	24.85	311	50	17.97	34.15	24.65	330	0.18
76	16.93	34.22	24.95	301	75	16.97	34.22	24.94	302	0.26
90	16.60	34.20	25.01	295	100	16.61	34.26	25.06	291	0.34
113	16.62	34.31	25.09	288	150	16.44	34.38	25.19	279	0.48
145	16.53	34.39	25.18	280	200	11.40	33.65	25.67	233	0.61
167	14.40	34.00	25.35	263	250	9.21	33.75	26.13	189	0.72
222	10.12	33.62	25.88	213	300	8.10	34.00	26.50	155	0.81
298	8.16	34.00	26.49	155	400	6.52	33.97	26.69	136	0.96
403	6.48	33.97	26.70	135	500	5.50	34.01	26.85	120	1.09
543	5.12	34.07	26.95	112	600	4.84	34.12	27.02	105	1.21
737	4.28	34.33	27.25	83	700	4.43	34.26	27.17	90	1.31
972	3.63	34.45	27.41	68	800	4.13	34.36	27.29	80	1.41
1292	2.96	34.56	27.56	54	1000	3.57	34.44	27.41	68	1.57
					1200	3.14	34.52	27.51	58	1.71
580a)	4.97	34.08	26.97	109	1500	2.61	34.58	27.61	49	1.90
810	4.14	34.33	27.26	82	2000	2.01	34.63	27.70	41	2.17
994	3.59	34.42	27.39	70	2500	1.72	34.64	27.73	38	2.41
1180	3.23	34.45u			3000	1.56	34.66	27.75	35	2.64
1368	2.86	34.54	27.55	54						
1848	2.14	34.62	27.68	42						
2095	1.92	34.65	27.72	39						
1895a)	2.13	34.61	27.67	43						
2135	1.92	34.63	27.70	40						
2421	1.76	34.63	27.72	39						
2711	1.64	34.67	27.76	35						
3104	1.53	34.65	27.75	36						
3405	1.49	34.68	27.78	33						
3714	1.46	34.69	27.79	32						
3819	1.48	34.69	27.78	32						

a) Overlapping casts; reconciliation of property curves when necessary.

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HORIZON; July 27, 1954; 0603, 0825 GCT; 32°40'N, 133°05'W; sounding, 2100 fm; wind, 040°, force 3; weather, overcast; sea, rough; wire angle, 18°, 17°.

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m
0	18.93	33.64			390	0	18.93	33.64		24.02	390	0.00
10	18.96	33.62			392	10	18.96	33.62		24.00	392	0.04
29	18.99	-				20	18.98					
53	16.14	-				30	18.99					
68	15.44	-				50	16.43					
78	15.18	-				75	15.26					
91	14.82	-				100	14.78					
115	14.71	-				150	13.26					
148	13.48	-				200	9.99					
170	12.09	-				250	8.57					
230	9.04	-				300	7.66					
296	7.71	-				400	6.44					
400	6.44	-				500	5.62					
540	5.28	-				600	5.04	34.14		27.01	106	0.00a)
730	4.58	-				700	4.60	34.22		27.12	95	0.11a)
961	3.80	-				800	4.25	34.31		27.23	85	0.21a)
1275	3.14	-				1000	3.72	34.42		27.38	71	0.38a)
						1200	3.28	34.49		27.47	62	0.53a)
565b)	5.30	34.14			108	1500	2.72	34.56		27.58	52	0.72a)
800	4.17	34.31			84	2000	2.05	34.62		27.69	42	1.00a)
1176	3.31	34.49			62	2500	1.75	34.62		27.71	40	1.25a)
1366	2.92	34.52			56	3000	1.59	34.66		27.75	35	1.49a)
1931	2.12	34.61			43	4000	1.49	34.67		27.77	34	1.94a)
2261	1.85	34.64			39							
2644	1.70	34.62			39							
3028	1.58	34.67			35							
3320	1.53	34.69			33							
3617	1.49	34.61u										
3922	1.48	34.72u										
4025	1.49	34.67			34							

a) This value is calculated with respect to the 600-decibar surface rather than the sea surface.
b) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
HORIZON; July 28, 1954; 0437, 0050 GCT; 33°12'N, 131°50'W; sounding, 2570 fm; wind, 060°, force 3; weather, overcast; sea, rough; wire angle, 20°, 23°.												
0	18.90	33.62	5.40	24.01	391	0	18.90	33.62	5.40	24.01	391	0.00
9	18.98	33.58	5.06	23.96	395	10	18.98	33.58	5.07	23.96	395	0.04
28	19.00	33.62	5.21	23.99	393	20	19.00	33.62	5.15	23.99	393	0.08
53	16.78	33.66	5.63	24.56	339	30	19.00	33.62	5.22	23.99	393	0.12
69	15.81	33.64	5.68	24.77	319	50	16.92	33.66	5.62	24.53	342	0.19
78	15.42	33.61	5.63	24.83	313	75	15.51	33.62	5.64	24.82	314	0.27
91	15.24	33.68	5.94	24.92	304	100	15.01	33.67	5.87	24.97	300	0.35
115	14.32	33.62	5.52	25.07	290	150	11.99	33.45	5.50	25.41	258	0.49
147	12.22	33.48	5.53	25.39	260	200	10.18	33.46	4.82	25.74	226	0.62
169	10.80	33.31	5.28	25.52	248	250	8.44	33.78	4.05	26.27	176	0.72
224	8.92	33.58	4.35	26.04	198	300	7.61	33.95	3.52	26.53	151	0.80
302	7.58	33.95	3.49	26.53	151	400	6.11	34.00	1.52	26.77	128	0.95
406	6.03	34.00	1.48	26.78	127	500	5.29	34.09	0.98	26.94	112	1.07
547	5.08	34.14	0.79	27.01	106	600	4.89	34.20	0.60	27.08	99	1.18
739	4.46	34.33	0.27	27.23	85	700	4.58	34.30	0.31	27.19	89	1.29
967	3.72	34.45	0.42	27.40	69	800	4.26	34.37	0.28	27.28	80	1.38
1193	3.20	34.49	0.72	27.48	61	1000	3.63	34.46	0.44	27.42	67	1.54
1378	2.86	34.58	1.30	27.58	51	1200	3.20	34.52	0.67	27.51	59	1.68
1859	2.15	34.62	1.96	27.68	43	1500	2.67	34.59	1.35	27.61	49	1.87
						2000	2.00	34.62	1.82	27.69	41	2.14
1130a)	3.36	34.51	0.46	27.48	61	2500	1.73	34.67	2.05	27.75	36	2.38
1414	2.82	34.55	0.92	27.56	53	3000	1.59	34.68	2.48	27.77	34	2.60
1846	2.16	34.63	1.48	27.68	42	4000	1.49	34.66	3.20	27.76	35	3.05
2181	1.88	34.62	1.77	27.70	40							
2519	1.72	34.67	2.06	27.75	36							
2857	1.62	34.65	2.32	27.74	36							
3148	1.56	34.70	2.65	27.79	32							
3440	1.51	34.70	2.90	27.79	32							
3734	1.49	34.69	3.09	27.78	32							
4033	1.49	34.65	3.22	27.75	35							
4342	1.49	34.66	3.30	27.76	35							
4447	1.50	34.70	3.30	27.79	32							

a) Overlapping casts; reconciliation of property curves when necessary.

SIO

CUSP

G

HORIZON; August 3, 1954; 1845, 2047 GCT; 43°00'N, 135°39'W; sounding, 2277 fm; wind, 300°, force 2; weather, overcast; sea, slight; wire angle, 05°, 05°.

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
0	15.80	32.86	6.09	24.17	376	0	15.80	32.86	6.09	24.17	376	0.00
10	15.43	32.89	6.11	24.27	366	10	15.43	32.89	6.11	24.27	366	0.04
26	14.28	32.87	5.98	24.51	344	20	15.30	32.90	6.10	24.31	362	0.07
57	9.73	32.94	5.75	25.41	258	30	13.74	32.88	5.91	24.62	332	0.11
67	9.22	32.90	6.10	25.46	253	50	10.43	32.94	5.75	25.29	269	0.17
77	8.88	32.94	5.84	25.55	245	75	8.94	32.93	5.88	25.53	246	0.23
88	8.54	32.99	5.86	25.64	236	100	8.30	33.03	5.84	25.71	230	0.29
113	8.13	33.10	5.82	25.79	222	150	8.09	33.49	5.03	26.10	192	0.40
138	8.11	33.32	5.43	25.96	205	200	7.85	33.88	4.36	26.44	160	0.49
167	8.03	33.71	4.61	26.28	175	250	7.11	33.89	3.71	26.55	149	0.57
221	7.64	33.91	4.19	26.49	155	300	6.19	33.86	2.92	26.65	140	0.64
299	6.20	33.86	2.94	26.65	140	400	5.19	33.90	2.00	26.80	125	0.78
408	5.13	33.90	1.92	26.81	125	500	4.55	33.99	1.32	26.95	112	0.90
550	4.26	34.04	1.02	27.02	105	600	4.12	34.07	0.90	27.06	101	1.01
743	3.73	34.16	0.40	27.17	91	700	3.83	34.14	0.52	27.14	93	1.12
980	3.22	34.31	0.27	27.34	75	800	3.62	34.21	0.30	27.22	86	1.21
1293	2.72	34.34u	0.42			1000	3.16	34.35	0.27	27.37	71	1.38
						1200	2.88	34.41	0.35	27.45	64	1.53
603a)	4.17	34.07	0.90	27.05	102	1500	2.41	34.54	0.52	27.59	51	1.73
946	3.25	34.33	0.24	27.35	74	2000	1.92	34.60	1.40	27.68	42	2.00
1141	2.98	34.40	0.35	27.43	66	2500	1.72	34.65	1.97	27.73	37	2.24
1435	2.52	34.52	0.46	27.57	53	3000	1.57	34.65	2.50	27.75	36	2.47
1924	1.97	34.60	1.27	27.68	43	4000	1.55	34.67	2.92	27.76	34	2.94
2170	1.84	34.61	1.57	27.69	41							
2563	1.71	34.65	2.03	27.74	37							
2959	1.58	34.65	2.46	27.75	36							
3359	1.55	34.67	2.70	27.76	34							
3664	1.55	-	2.80									
3978	1.55	34.67	2.90	27.76	34							
4084	1.55	34.69	2.99	27.78	33							

a) Overlapping casts; reconciliation of property curves when necessary.

SIO

CUSP

MM

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
HORIZON; August 4, 1954; 1707, 1952 GCT; 44°19'N, 138°04'W; sounding, 2306 fm; wind, 360°, force 4; weather, overcast; sea, moderate; wire angle, 20°, 17°.												
0	14.94	32.84	5.76	24.34	359	0	14.94	32.84	5.76	24.34	359	0.00
10	14.88	32.84	5.78	24.36	358	10	14.88	32.84	5.78	24.36	358	0.04
30	13.27	32.84	5.92	24.69	326	20	14.81	32.84	5.79	24.37	357	0.07
53	9.30	33.01	6.30	25.54	246	30	13.27	32.84	5.92	24.69	326	0.11
68	8.62	32.99	6.17	25.63	237	50	9.49	33.01	6.29	25.50	249	0.16
78	8.18	32.97	6.05	25.68	232	75	8.30	32.98	6.07	25.67	233	0.22
92	7.94	32.96	6.52	25.70	230	100	7.76	32.96	6.57	25.73	227	0.28
116	7.34	32.97	6.60	25.80	221	150	7.50	33.22	5.75	25.97	204	0.39
149	7.45	33.20	5.80	25.96	205	200	7.72	33.77	4.65	26.37	166	0.48
172	7.80	33.53	5.24	26.17	185	250	7.13	33.92	4.02	26.57	147	0.56
227	7.64	33.93	4.24	26.51	153	300	5.91	33.89	3.50	26.71	134	0.64
306	5.81	33.89	3.45	26.72	133	400	4.87	33.91	2.26	26.85	121	0.77
411	4.80	33.91	2.17	26.86	120	500	4.40	33.99	1.40	26.96	110	0.89
552	4.20	34.04	1.11	27.02	104	600	4.05	34.09	0.93	27.08	99	1.00
746	3.62	34.22	0.61	27.23	85	700	3.75	34.18	0.69	27.18	89	1.10
976	3.16	34.34	0.39	27.37	72	800	3.50	34.25	0.54	27.26	82	1.19
1203	2.84	34.42	0.35	27.46	63	1000	3.12	34.35	0.38	27.38	71	1.36
1391	2.54	34.47	0.49	27.52	57	1200	2.84	34.41	0.33	27.45	64	1.50
1872	2.00	34.51	1.29	27.60	50	1500	2.39	34.51	0.66	27.57	53	1.70
						2000	1.91	34.59	1.45	27.67	43	1.98
1204a)	2.82	34.40	0.31	27.44	65	2500	1.71	34.64	1.90	27.73	38	2.23
1495	2.40	34.51	0.61	27.57	53	3000	1.59	34.65	2.40	27.74	36	2.46
1935	1.94	34.58	1.41	27.66	44	4000	1.52	34.67	3.00	27.77	34	2.92
2324	1.76	34.62	1.76	27.71	40							
2795	1.65	34.65	2.17	27.74	37							
3109	1.56	34.65	2.52	27.75	36							
3409	1.52	34.66	2.83	27.76	35							
3709	1.52	34.67	3.22	27.77	34							
4018	1.52	34.67	3.00	27.77	34							
4122	1.54	34.67	3.01	27.76	34							

a) Overlapping casts; reconciliation of property curves when necessary.

SIO

CUSP

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

E

HORIZON; August 5, 1954; 1732 GCT; 43°58'N, 141°57'W; sounding, 2188 fm; wind, 270°, force 2; weather, drizzle; sea, slight; wire angle, 06°.

0	16.39	32.89	5.70	24.06	386	0	16.39	32.89	5.70	24.06	386	0.00
10	14.98	32.90	5.99	24.38	356	10	14.98	32.90	5.99	24.38	356	0.04
26	12.48	32.89	6.17	24.88	308	20	13.00	32.89	6.15	24.78	318	0.07
51	10.56	32.98	6.12	25.30	268	30	12.15	32.89	6.16	24.94	302	0.10
61	9.40	33.12	6.33	25.61	239	50	10.68	32.97	6.12	25.27	271	0.16
71	9.04	33.16	6.48	25.69	231	75	8.75	33.18	6.47	25.75	225	0.22
81	8.32	33.19	6.45	25.83	218	100	7.80	33.12	6.55	25.85	216	0.28
101	7.79	33.12	6.55	25.85	216	150	7.60	33.47	5.88	26.15	187	0.38
125	7.79	33.22	6.23	25.93	208	200	7.51	33.88	5.07	26.49	155	0.47
155	7.57	33.53	5.80	26.20	182	250	6.73	33.89	4.45	26.60	144	0.54
203	7.50	33.89	5.00	26.50	154	300	5.87	33.89	3.75	26.71	134	0.61
271	6.36	33.89	4.18	26.65	140	400	4.70	33.93	2.40	26.88	118	0.74
374	4.88	33.91	2.70	26.85	121	500	4.35	34.02	1.58	26.99	107	0.86
501	4.34	34.02	1.55	26.99	107	600	3.98	34.07	1.07	27.07	100	0.97
683	3.70	34.13	0.75	27.15	93	700	3.65	34.15	0.70	27.17	91	1.07
906	3.18	34.37	0.41	27.39	70	800	3.41	34.26	0.47	27.28	80	1.16
1212	2.73	34.45	0.46	27.49	60	1000	3.01	34.40	0.42	27.43	66	1.32
						1200	2.75	34.45	0.45	27.49	60	1.46

O

HORIZON; August 6-7, 1954; 0300, 0045, 2140 GCT; 44°49.5'N, 143°36.5'W; sounding, 2550 fm; wind, 320°, force 1; weather, overcast; sea, slight; wire angle, 01°, 00°, 00°.

0	15.60	32.92	5.82	24.26	367	0	15.60	32.92	5.82	24.26	367	0.00
10	14.92	32.90	6.27	24.39	354	10	14.92	32.90	6.27	24.39	354	0.04
26	11.94	32.88	6.73	24.98	299	20	13.60	32.89	6.60	24.66	329	0.07
52	8.80	32.95	6.37	25.57	243	30	11.13	32.89	6.70	25.13	284	0.10
62	8.14	32.95	6.41	25.67	233	50	8.98	32.95	6.37	25.54	245	0.15
72	7.68a)	32.96	6.37	25.74	226	75	7.67	32.96	6.40	25.74	226	0.21
82	7.49	32.95	6.57	25.76	224	100	7.02	32.94	6.55	25.82	219	0.27
103	6.98	32.94	-	25.82	218	150	7.00	33.34	6.08	26.13	189	0.37
127	6.90	33.00	6.48	25.88	213	200	7.39	33.94	4.57	26.55	149	0.46
158	7.08	33.49	5.82	26.24	179	250	6.49	33.90	4.01	26.64	141	0.53
207	7.28	33.95	4.46	26.57	147	300	5.72	33.88	3.50	26.72	133	0.60
275	6.07	33.88	3.79	26.68	137	400	4.75	33.90	2.40	26.85	121	0.73
379	4.90	33.89	2.65	26.83	123	500	4.29	34.00	1.42	26.98	108	0.85
505	4.27	34.00	1.40	26.99	108	600	3.99	34.09	0.75	27.09	99	0.96
687	3.74	34.17	0.70	27.17	90	700	3.74	34.18	0.62	27.18	89	1.06
911	3.20	34.23	0.60	27.27	81	800	3.50	34.24	0.59	27.25	83	1.15
1218	2.70	34.43	0.39	27.48	61	1000	3.02	34.34	0.46	27.38	71	1.32
						1200	2.72	34.42	0.40	27.47	62	1.46
593b)	4.04	34.08	0.53	27.07	100							
827	3.46	34.29	0.56	27.30	78							
3080	1.55	34.65	2.61	27.75	36							
3378	1.50	34.65	2.90	27.75	36							
3780	1.50	34.65	3.02	27.75	36							
4137	1.53	34.66	3.11	27.76	35							
4398	1.53	34.66	3.10	27.76	35							
4504	1.56	34.69	3.11	27.78	33							

a) Mean value of 7.63 and 7.74°C.

b) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
HORIZON; August 7, 1954; 2046, 2250 GCT; 42°38.5'N, 142°25'W; sounding, 2368 fm; wind, 020°, force 3; weather, overcast; sea, slight; wire angle, 03°, 03°.												
0	16.50	33.12	5.76	24.21	372	0	16.50	33.12	5.76	24.21	372	0.00
10	16.18	33.12	5.68	24.28	365	10	16.18	33.12	5.68	24.28	365	0.04
26	13.94	33.12	5.98	24.77	319	20	14.38	33.12	5.90	24.68	327	0.07
51	11.50	33.14	6.19	25.26	272	30	13.72	33.12	6.00	24.81	314	0.10
61	10.18	33.24	6.09	25.57	242	50	12.00	33.13	6.18	25.16	282	0.16
72	9.50	33.19	6.01	25.64	235	75	9.34	33.20	6.01	25.68	232	0.23
82	9.02	33.21	6.03	25.74	227	100	8.64	33.19	6.05	25.78	223	0.29
102	8.60	33.19	6.06	25.79	222	150	8.23	33.49	5.82	26.08	194	0.39
126	8.00	33.18	6.14	25.87	214	200	8.30	33.82	5.27	26.32	171	0.48
156	8.34	33.56	5.73	26.11	191	250	8.21	34.01	4.65	26.49	155	0.57
205	8.37	33.84	5.24	26.33	170	300	7.00	34.00	3.92	26.65	140	0.64
274	7.58	34.01	4.21	26.58	147	400	5.51	33.96	3.00	26.81	124	0.78
377	5.78	33.96	3.23	26.78	127	500	4.68	34.02	1.91	26.96	111	0.90
507	4.64	34.02	1.88	26.96	110	600	4.24	34.09	1.24	27.06	101	1.01
689	3.92	34.16	0.79	27.15	93	700	3.89	34.17	0.75	27.16	92	1.11
910	3.30	34.31	0.37	27.33	76	800	3.57	34.25	0.47	27.26	82	1.21
1212	2.78	34.43	0.33	27.47	62	1000	3.12	34.35	0.34	27.38	71	1.37
1483	2.39	34.52	0.53	27.58	52	1200	2.80	34.42	0.33	27.46	63	1.52
1879	2.00	34.56	1.22	27.64	46	1500	2.40	34.51	0.56	27.57	53	1.72
2179	1.84	34.60	1.62	27.69	42	2000	1.92	34.58	1.35	27.66	44	2.00
2483	1.72	34.61	1.99	27.70	40	2500	1.71	34.62	2.00	27.71	39	2.25
						3000	1.55	34.65	2.75	27.75	36	2.49
1491a)	2.42	34.47	0.52	27.54	56	4000	1.52	34.67	3.07	27.77	34	2.94
1883	2.00	34.56	1.14	27.64	46							
2374	1.74	34.62	1.85	27.71	39							
2670	1.63	34.65	2.29	27.74	36							
2965	1.56	34.65	2.72	27.75	36							
3265	1.51	34.69	2.90	27.78	33							
3567	1.51	34.68	3.08	27.77	33							
3874	1.52	34.67	3.06	27.77	34							
4186	1.53	34.67	3.11	27.76	34							
4292	1.56	34.65	3.13	27.75	36							

a) Overlapping casts; reconciliation of property curves when necessary.

SIO

CUSP

C

HORIZON; August 9-10, 1954; 1918, 2106, 0100 GCT; 36°25'N, 143°23.5'W; sounding, 3050 fm; wind, 090°, force 4; weather, cloudy; sea, moderate; wire angle, 23°, 24°, 16°.

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
0	20.28	34.22	5.25	24.11	381	0	20.28	34.22	5.25	24.11	381	0.00
9	20.28	34.22	5.30	24.11	381	10	20.27	34.22	5.30	24.12	381	0.04
23	20.08	34.20	5.45	24.15	378	20	20.13	34.21	5.42	24.15	378	0.08
52	15.45	33.91	6.12	25.05	292	30	19.92	34.20	5.52	24.19	374	0.11
61	15.07	33.95	5.96	25.17	281	50	15.57	33.91	6.12	25.03	294	0.18
70	14.60	33.95	5.98	25.27	271	75	14.38	33.95	5.98	25.32	267	0.25
84	14.00	33.96	5.97	25.40	258	100	13.07	33.85	5.89	25.51	248	0.32
103	12.90	33.84	5.85	25.53	246	150	11.04	33.87	5.24	25.91	210	0.43
125	12.08	33.86	5.47	25.71	229	200	10.11	33.97	5.21	26.15	187	0.53
153	10.94	33.87	5.23	25.93	209	250	9.56	33.99	4.85	26.26	177	0.63
201	10.10	33.97	5.21	26.15	187	300	8.57	33.98	4.30	26.41	163	0.71
274	9.08	34.00	4.49	26.34	169	400	6.90	33.93	3.77	26.61	144	0.87
375	7.28	33.93	3.99	26.56	149	500	5.58	33.96	2.65	26.81	125	1.01
507	5.40	34.00	2.54	26.86	120	600	4.70	34.06	1.60	26.99	108	1.14
686	4.30	34.18	0.88	27.12	95	700	4.30	34.19	0.75	27.13	94	1.24
912	3.66	34.33	0.33	27.31	77	800	4.02	34.25	0.43	27.21	87	1.34
1215	3.14	34.48	0.53	27.48	61	1000	3.49	34.37	0.30	27.36	73	1.51
						1200	3.15	34.46	0.47	27.46	63	1.67
568a)	5.00	33.98	2.01	26.89	117	1500	2.66	34.55	0.93	27.58	52	1.86
803	4.06	34.24	0.42	27.20	88	2000	2.02	34.61	1.52	27.68	42	2.14
991	3.54	34.36	0.25	27.35	74	2500	1.72	34.64	2.05	27.73	38	2.39
1180	3.18	34.45	0.39	27.45	64	3000	1.55	34.65	2.54	27.75	36	2.62
1371	2.84	34.50	0.68	27.52	57	4000	1.50	34.67	3.22	27.77	34	3.08
1849	2.15	34.60	1.31	27.66	44	5000	1.58	34.67	3.44	27.76	35	3.56
2087	1.97	34.61	1.62	27.68	42							
2374	1.78	34.61	1.91	27.70	41							
2661	1.66	34.66	2.25	27.75	36							
3048	1.55	34.65	-	27.75	36							
3342	1.52	34.65	2.90	27.75	36							
3646	1.50	34.66	-	27.76	35							
3264a)	1.52	34.66	2.66	27.76	35							
3549	1.50	34.66	2.95	27.76	35							
3834	1.49	34.67	3.16	27.77	34							
4028	1.50	34.67	3.23	27.77	34							
4273	1.50	34.66	3.30	27.76	35							
4520	1.53	34.67	3.32	27.76	34							
4772	1.55	34.66	3.37	27.76	35							
5029	1.59	34.67	3.45	27.76	35							
5240	1.60	34.67	3.48	27.76	35							
5347	1.60	34.68	3.35	27.77	34							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

HORIZON; August 10-11, 1954; 1948, 2135, 0049 GCT; 34°27.5'N, 141°44.5'W; sounding, 2825 fm; wind, 090°, force 3; weather, cloudy; sea, moderate; wire angle, 12°, 20°, 07°.

0	21.08	34.51	5.16	24.12	381	0	21.08	34.51	5.16	24.12	381	0.00
10	21.08	34.52	5.34	24.13	380	10	21.08	34.52	5.34	24.13	380	0.04
30	20.84	34.53	5.45	24.20	373	20	20.97	34.53	5.42	24.16	376	0.08
56	18.37	34.23	5.76	24.61	334	30	20.84	34.53	5.45	24.20	373	0.11
71	17.70	34.32	5.67	24.84	311	50	19.90	34.28	5.73	24.26	367	0.19
81	17.36	34.37	5.69	24.96	300	75	17.53	34.35	5.68	24.91	305	0.27
95	16.28	34.20	5.67	25.09	288	100	16.35	34.23	5.66	25.09	288	0.35
120	15.21	34.13	5.59	25.27	271	150	12.83	33.83	5.34	25.54	245	0.48
154	12.52	33.80	5.31	25.58	242	200	10.38	33.80	5.05	25.97	204	0.60
177	10.96	33.71	5.15	25.80	221	250	9.62	33.96	4.84	26.22	180	0.69
234	9.89	33.93	4.91	26.16	187	300	8.74	33.98	4.55	26.38	165	0.78
315	8.46	33.98	4.47	26.42	161	400	6.91	33.92	3.84	26.60	144	0.94
425	6.52	33.91	3.60	26.65	140	500	5.58	33.96	2.50	26.81	125	1.09
572	4.98	34.03	1.71	26.93	113	600	4.81	34.06	1.38	26.97	109	1.21
774	4.14	34.21	0.50	27.17	91	700	4.40	34.16	0.71	27.10	97	1.32
1015	3.55	34.40	0.33	27.38	71	800	4.10	34.25	0.39	27.20	88	1.42
1344	2.84	34.55	0.74	27.56	53	1000	3.57	34.41	0.31	27.38	70	1.59
						1200	3.11	34.50	0.50	27.50	59	1.74
572a)	4.98	34.04	1.52	26.94	112	1500	2.54	34.58	0.99	27.61	49	1.92
807	4.10	34.28	0.31	27.23	85	2000	1.93	34.62	1.70	27.69	41	2.19
997	3.57	34.42	0.28	27.39	70	2500	1.69	34.67	2.23	27.75	35	2.42
1188	3.12	34.52	0.57	27.51	58	3000	1.55	34.67	1.54	27.76	34	2.64
1379	2.73	34.54	0.72	27.56	53	4000	1.47	34.67	3.24	27.77	34	3.09
1860	2.06	34.63	1.48	27.69	41	5000	1.55	34.67	3.55	27.76	34	3.57
2099	1.88	34.62	1.76	27.70	40							
2387	1.74	34.66	2.08	27.74	36							
2677	1.62	34.67	2.45	27.76	35							
3067	1.53	34.67	2.59	27.76	34							
3360	1.50	34.67	2.87	27.77	34							
3659	1.50	34.59u	2.83	27.70	40							
3248a)	1.51	34.69	2.98	27.78	33							
3638	1.46	34.67	3.00	27.77	34							
3932	1.47	34.68	3.17	27.78	33							
4129	1.48	34.66	3.33	27.76	35							
4380	1.51	34.67	3.38	27.77	34							
4635	1.53	34.68	3.41	27.77	33							
4895	1.56	34.68	3.42	27.77	34							
5054	1.55	34.67	3.60	27.76	34							
5162	1.58	34.69	3.50	27.78	33							

a) Overlapping casts; reconciliation of property curves when necessary.

SIO

CUSP

F

HORIZON; August 12, 1954; 2022 GCT; 34°24.5'N, 133°20'W; sounding, 2860 fm; wind, 020°, force 4; weather, drizzle; sea, rough; wire angle, 15°.

OBSERVED				COMPUTED		INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
0	19.19	33.82	5.77	24.09	383	0	19.19	33.82	5.77	24.09	383	0.00
9	19.28	33.83	5.61	24.08	385	10	19.27	33.83	5.53	24.08	384	0.04
23	19.20	33.87	5.13	24.13	380	20	19.22	33.86	5.16	24.12	381	0.08
48	19.08	33.87	5.44	24.16	377	30	19.17	33.87	5.25	24.14	379	0.11
57	18.00	34.01	5.85	24.53	341	50	19.06	33.87	5.47	24.16	376	0.19
66	17.18	33.98	5.76	24.71	324	75	16.50	33.95	5.74	24.85	311	0.28
75	16.50	33.95	5.74	24.85	311	100	15.57	33.86	5.62	24.99	298	0.35
94	15.69	33.86	5.66	24.96	300	150	14.48	33.89	5.40	25.25	273	0.50
118	15.44	33.92	5.54	25.06	291	200	11.10	33.58	5.19	25.67	233	0.63
144	15.00	33.96	5.42	25.19	279	250	9.49	33.80	4.67	26.12	190	0.73
191	11.52	33.56	5.24	25.58	241	300	8.38	33.89	4.20	26.37	167	0.83
256	9.34	33.82	4.60	26.16	186	400	6.63	33.94	3.34	26.66	139	0.99
354	7.38	33.93	3.74	26.54	150	500	5.48	33.99	2.22	26.84	122	1.12
477	5.68	33.97	2.50	26.80	126	600	4.89	34.10	0.95	27.00	107	1.24
650	4.68	34.15	0.53	27.06	101	700	4.48	34.20	0.36	27.12	95	1.35
862	3.96	34.33	0.26	27.28	80	800	4.13	34.28	0.28	27.22	86	1.45
1149	3.28	34.47	0.57	27.46	63	1000	3.58	34.42	0.38	27.39	70	1.62
1408	2.80	34.52	0.94	27.54	55	1200	3.18	34.48	0.64	27.48	62	1.77
1786	2.18	34.58	1.39	27.64	46	1500	2.63	34.53	1.04	27.56	53	1.96
2071	1.94	34.62	1.81	27.69	41	2000	1.99	34.62	1.70	27.69	41	2.24
2357	1.78	34.63	2.03	27.71	39	2500	1.71	34.64	2.07	27.73	38	2.48
2841	1.61	34.67	2.13	27.76	35	3000	1.59	34.67	2.43	27.76	35	2.71
3342	1.52	34.67	2.87	27.77	34							

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

SPENCER F. BAIRD; November 13, 1954; 0536, 0824 GCT; 20°09.5'N, 106°28.5'W; sounding, 2015 fm; wind, variable; weather, clear; sea, smooth; wire angle, 05°, 17°.

0	27.93	34.44	581	0	27.93	34.44	22.02	581	0.00
10	27.98	34.48	580	10	27.98	34.48	22.03	580	0.06
15	27.93	34.45	581	20	27.20	34.42	22.24	560	0.12
20	27.20	34.42	560	30	21.61	34.56	24.01	391	0.16
25	25.33	34.44	503	50	16.78	34.55	25.24	274	0.23
30	21.61	34.56	391	75	14.53	34.68	25.85	216	0.29
35	19.85	34.50	350	100	13.40	34.78	26.16	186	0.34
41	18.66	34.47	323	150	12.35	34.79	26.38	166	0.43
46	17.74	34.51	299	200	11.75	34.80	26.50	154	0.51
51	16.65	34.56	270	250	11.09	34.75	26.58	146	0.59
61	15.75	34.63	245	300	10.39	34.69	26.66	139	0.67
80	14.20	34.70	208	400	8.88	34.61	26.85	121	0.80
100	13.40	34.78	186	500	7.64	34.56	27.00	106	0.92
149	12.36	34.79	166	600	6.67	34.51	27.10	97	1.04
197	11.76	34.80	154	700	5.98	34.50	27.18	89	1.14
295	10.46	34.70	139	800	5.40	34.50	27.25	83	1.23
392	-	34.61		1000	4.42	34.57	27.42	67	1.40
589	6.64	34.52	96	1200	3.80	34.55	27.47	62	1.55
886	4.90	34.55	73	1500	3.12	34.63	27.60	50	1.75
1185	3.87	34.55	63	2000	2.20	34.64	27.69	41	2.03
				2500	1.85	34.68	27.75	36	2.27
581a)	6.96	34.53	100	3000	1.84	34.66	27.73	37	2.51
771	5.59	34.50	85						
962	4.56	34.57	68						
1249	3.63	34.58	58						
1440	3.24	34.62	52						
1632	2.82	34.64	46						
1824	2.46	34.64	43						
2019	2.18	34.64	41						
2215	1.96	34.67	37						
2411	1.86	34.67	37						
2607	1.84	34.70	34						
2805	1.84	34.67	36						
3105	1.84	34.66	37						
3207	1.88	34.70	34						
3311	1.85	34.67	36						
3416	1.87	34.64	39						
3525	1.88	34.67	37						

a) Overlapping casts; reconciliation of property curves when necessary.

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SPENCER F. BAIRD; November 14, 1954; 1415, 1633 GCT; 18°35'N, 104°59'W; sounding, 2275 fm; wind, 090°, force 1; weather, partly cloudy; sea, moderate; wire angle, 05°, 08°.

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	δ_T cl/ton	Z m	T °C	S ‰	σ_t g/L	δ_T cl/ton	ΔD dyn m
0	28.76	34.49	604	0	28.76	34.49	21.78	604	0.00
10	28.78	34.48	605	10	28.78	34.48	21.77	605	0.06
15	28.74	34.54	600	20	28.06	34.47	22.00	583	0.12
20	28.06	34.47	583	30	23.81	34.40	23.26	462	0.17
25	24.63	34.45	482	50	17.18	34.69	25.25	273	0.25
31	23.68	34.40	458	75	13.96	34.80	26.06	196	0.31
36	22.06	34.52	406	100	13.42	34.82	26.19	184	0.35
41	20.07	34.58	350	150	12.64	34.84	26.36	167	0.44
46	17.82	34.64	291	200	11.92	34.85	26.51	153	0.53
51	17.04	34.70	269	250	11.31	34.81	26.59	146	0.60
56	-	34.72		300	10.73	34.75	26.65	140	0.68
61	15.78	34.70	241	400	9.51	34.67	26.80	126	0.82
70	14.46	34.73	211	500	8.11	34.60	26.96	110	0.94
80	13.76	34.83	190	600	6.92	34.57	27.11	96	1.06
100	13.42	34.82	184	700	6.12	34.56	27.21	87	1.16
199	11.94	34.85	154	800	5.52	34.57	27.29	79	1.25
345	-	34.71		1000	4.58	34.59	27.42	67	1.42
592	6.88	34.56	96	1200	3.80	34.62	27.53	57	1.56
888	5.10	34.59	73	1500	3.01	34.63	27.61	49	1.75
1191	3.85	34.64	56	2000	2.12	34.65	27.70	40	2.02
				2500	1.84	34.69	27.76	35	2.26
352a)	10.12	34.70	134	3000	1.85	34.72	27.78	33	2.48
596	7.09	34.64u		4000	(1.93)	(34.70)	(27.76)	(35)	(2.96)
890	5.05	34.56	74						
1182	3.89	34.60	59						
1377	3.31	34.61	53						
1573	2.84	34.64	47						
1766	2.50	34.66	42						
1959	2.18	34.65	40						
2154	2.00	34.67	38						
2353	1.88	34.68	36						
2546	1.84	34.69	35						
2743	1.84	34.70	34						
2941	1.84	34.72	33						
3141	1.86	-							
3342	1.86	34.71	34						
3543	1.90	34.70	35						
3748	1.89	34.70	35						
3852	1.92	34.70	35						
3958	1.93	-							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

SPENCER F. BAIRD; November 17, 1954; 1055, 1723 GCT; 16°10'N, 101°44.5'W; sounding, 2900 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 18°, 18°.

0	28.55	33.25	686	0	28.55	33.25	20.92	686	0.00
10	28.54	33.25	686	10	28.54	33.25	20.93	686	0.07
15	28.57	33.26	686	20	28.63	33.48	21.07	672	0.14
20	28.63	33.48	672	30	25.49	34.41	22.77	510	0.20
24	27.50	34.08	594	50	18.73	34.60	24.80	315	0.28
29	25.90	34.35	526	75	15.01	34.79	25.83	218	0.35
34	24.11	34.61	455	100	13.70	34.92	26.21	182	0.40
39	22.82	34.68	415	150	12.62	34.82	26.35	169	0.49
43	20.08	34.60	349	200	12.03	34.91	26.53	151	0.57
48	19.18	34.60	326	250	11.51	34.94	26.65	140	0.64
53	-	34.65		300	10.91	34.84	26.69	136	0.72
58	-	34.69		400	9.52	34.69	26.81	125	0.85
68	15.54	34.74	233	500	8.08	34.65	27.01	106	0.98
96	13.84	34.92	185	600	7.00	34.63	27.15	93	1.09
142	12.76	34.82	171	700	6.24	34.59	27.22	86	1.18
233	11.70	34.95	142	800	5.60	34.56	27.28	80	1.28
373	-	34.70		1000	4.58	34.57	27.40	68	1.45
559	7.36	34.64	97	1200	3.82	34.60	27.51	58	1.59
840	5.36	34.55	78	1500	3.09	34.62	27.60	50	1.79
1129	4.08	34.59	62	2000	2.19	34.67	27.71	39	2.06
				2500	1.82	34.75	27.81	30	2.29
386a)	9.76	34.71	127	3000	1.82	34.72	27.78	32	2.50
762	5.82	34.63u		4000	1.95	34.70	27.76	35	2.97
1146	4.09	34.60	61	5000	2.10	34.68	27.73	38	3.52
1430	3.24	34.62	52						
1718	2.66	34.64	45						
2004	2.18	34.67	39						
2299	1.92	34.64	39						
2590	1.82	34.75	30						
2880	1.81	34.74	31						
3176	1.84	34.69	35						
3470	1.88	34.70	34						
3769	1.94	34.78	29						
4069	1.96	34.70	35						
4369	1.98	34.73	33						
4672	2.02	34.70	35						
4984	2.10	34.69	37						
5195	2.12	34.66	39						

a) Overlapping casts; reconciliation of property curves when necessary.

9

SPENCER F. BAIRD; November 19, 1954; 1627 GCT; 15°18'N, 93°51.5'W; sounding, 105 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 00°.

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
0	28.55	33.02	703	0	28.55	33.02	20.75	703	0.00
5	28.56	32.99	705	10	28.34	33.00	20.80	698	0.07
10	28.34	33.00	698	20	18.57	34.77	24.97	299	0.12
13	26.44	33.30	618	30	17.04	34.79	25.36	262	0.15
16	22.48	34.28	434	50	14.95	34.86	25.89	212	0.20
19	19.00	34.69	315	75	14.03	34.87	26.10	192	0.25
22	17.95	34.79	283	100	13.55	34.88	26.21	182	0.29
25	17.50	34.79	273	150	12.74	34.89	26.38	166	0.38
28	17.24	34.79	267						
31	16.97	34.79	261						
41	15.58	34.86	225						
62	14.41	34.86	201						
100	13.55	34.88	182						
140	12.88	34.90	168						
188	12.32	34.85	161						

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SPENCER F. BAIRD; November 20, 1954; 1443 GCT; 13°38'N, 91°41'W; sounding, 67 fm; wind, 190°, force 2; weather, clear; sea, rough; wire angle, 00°.

0	27.96	32.93	691	0	27.96	32.93	20.88	691	0.00
5	27.93	32.90	692	10	27.64	32.97	21.01	678	0.07
10	27.64	32.97	678	20	23.02	34.16	23.31	458	0.13
12	27.59	32.99	675	30	19.01	34.70	24.81	315	0.16
14	26.93	33.22	638	50	15.50	34.86	25.77	223	0.22
16	26.03	33.43	596	75	14.56	34.88	25.99	202	0.27
18	24.26	33.88	512	100	13.89	34.89	26.14	188	0.32
20	23.02	34.16	458						
25	20.08	34.61	348						
31	18.82	34.71	310						
36	-	34.77							
41	16.30	34.86	241						
52	15.40	34.86	221						
91	14.14	34.89	193						
115	13.40	-							
121	13.30	34.88	177						

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SPENCER F. BAIRD; November 21, 1954; 1511 GCT; 13°25'N, 91°35'W; sounding, 65 fm; wind, 060°, force 3; weather, clear; sea, moderate; wire angle, 00°.

0	28.20	32.84	705	0	28.20	32.84	20.73	705	0.00
10	28.23	32.84	706	10	28.23	32.84	20.72	706	0.07
15	28.18	32.86	703	20	28.08	32.96	20.86	692	0.14
20	28.08	32.96	692	30	21.21	34.48	24.06	386	0.19
22	28.02	33.01	687	50	17.91	34.75	25.12	285	0.26
24	25.76	33.67	571	75	14.85	34.91	25.95	206	0.32
26	23.48	34.07	477	100	13.61	34.90	26.21	182	0.37
28	21.86	34.40	409						
32	20.75	34.53	371						
41	19.26	34.66	324						
46	-	34.89							
51	-	34.75							
70	15.40	34.91	218						
90	13.88	34.91	186						
115	13.32	34.87	178						

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

12

SPENCER F. BAIRD; November 22, 1954; 2117, 2229, 1249 GCT; 13°07.5'N, 91°56'W; sounding, 3335 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 07°, 12°, 00°.

0	28.96	33.26	699	0	28.96	33.26	20.79	699	0.00
10	28.88	33.22	699	10	28.88	33.22	20.79	699	0.07
26	27.89	33.20	669	20	28.51	33.20	20.90	689	0.14
31	25.18	33.67	554	30	26.37	33.47	21.79	603	0.20
35	20.57	34.61	360	50	15.71	34.81	25.69	231	0.29
40	18.12	34.76	289	75	13.92	34.85	26.11	191	0.34
45	16.66	34.82	251	100	13.56	34.88	26.20	182	0.39
50	15.71	34.81	231	150	12.64	34.85	26.37	167	0.48
59	14.73	34.81	211	200	12.17	34.82	26.44	160	0.56
70	14.24	34.85	198	250	11.52	34.78	26.53	151	0.64
79	13.77	34.85	188	300	10.91	34.75	26.62	143	0.72
				400	9.68	34.69	26.78	127	0.86
98	13.58	34.88	183	500	8.12	34.64	26.99	107	0.99
142	12.77	34.86	168	600	6.91	34.60	27.14	94	1.10
190	12.26	34.83	161	700	6.22	34.59	27.22	86	1.20
286	11.10	34.76	146	800	5.66	34.59	27.29	79	1.29
385	9.94	34.70	131	1000	4.58	34.59	27.42	67	1.45
582	7.08	34.60	96	1200	3.88	34.60	27.50	59	1.60
780	5.77	34.57	82	1500	3.17	34.63	27.60	50	1.80
1177	3.97	34.57	62	2000	2.22	34.67	27.71	39	2.07
1783	2.62	34.64	45	2500	1.88	34.66	27.73	37	2.31
				3000	1.85	34.66	27.73	37	2.56
882a)	5.18	34.61	72	4000	1.94	34.71	27.77	34	3.05
1464	3.26	34.65	50	5000	2.06	34.68	27.73	37	3.59
2052	2.16	34.67	39	6000	(2.20)	(34.66)	(27.71)	(40)	(4.21)
2640	1.85	34.66	37						
3233	1.86	34.67	37						
3830	1.92	34.71	34						
4430	1.99	34.69	36						
5044	2.06	34.68	37						
5669	2.14	34.64	41						
5887	2.14	34.65	40						
5991	2.20	34.66	40						

13

SPENCER F. BAIRD; November 23, 1954; 1654 GCT; 12°52'N, 91°23'W; sounding, 3220 fm; wind, 010°, force 3; weather, partly cloudy; sea, moderate; wire angle, 06°.

0	28.67	32.94	712	0	28.67	32.94	20.65	712	0.00
10	28.64	32.86	717	10	28.64	32.86	20.60	717	0.07
15	28.61	32.89	714	20	28.52	32.90	20.67	711	0.14
20	28.52	32.90	711	30	22.32	34.23	23.56	433	0.20
27	25.08	33.53	561	50	14.95	34.85	25.89	212	0.27
31	21.38	34.51	388	75	14.03	34.85	26.08	194	0.32
36	17.41	34.81	269	100	13.46	34.87	26.22	181	0.36
52	14.82	34.85	210	150	12.60	34.84	26.37	167	0.45
71	14.16	34.85	196	200	11.98	34.80	26.46	158	0.54
101	13.46	34.87	181	250	11.45	34.76	26.53	152	0.62
198	12.00	34.80	159	300	10.94	34.73	26.60	145	0.69
393	10.02	34.68	133	400	9.94	34.68	26.73	132	0.84
589	7.31	34.58	100	500	8.40	34.61	26.93	114	0.97
788	5.76	34.59	80	600	7.15	34.58	27.09	98	1.09
985	4.80	34.58	70	700	6.28	34.59	27.21	86	1.19
1184	4.00	34.55	64	800	5.68	34.59	27.29	79	1.28
1384	3.40	34.60	55	1000	4.72	34.58	27.40	69	1.45
1586	2.95	34.58	52	1200	3.92	34.55	27.46	63	1.60
1790	2.64	34.67	43	1500	3.12	34.58	27.56	54	1.81
1998	2.32	34.64	42	2000	(2.32)	(34.64)	(27.68)	(42)	(2.10)

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

SPENCER F. BAIRD; November 24, 1954; 1943, 1617 GCT; 11°56'N, 91°38'W; sounding, 1960 fm; wind, 120°, force 2; weather, cloudy; sea, rough; wire angle, 06°, 06°.

0	28.28	33.21	681	0	28.28	33.21	20.98	681	0.00
5	28.28	33.04	693	10	28.06	33.03	20.92	687	0.07
10	28.06	33.03	687	20	24.67	33.75	22.52	533	0.13
15	27.43	33.30	648	30	19.64	34.63	24.59	335	0.17
20	24.67	33.75	533	50	16.32	34.87	25.59	240	0.23
25	22.28	34.34	424	75	14.72	34.91	25.98	203	0.29
30	19.64	34.63	335	100	13.60	34.92	26.23	180	0.34
35	18.28	34.76	293	150	12.77	34.89	26.37	166	0.42
40	17.60	34.78	276	200	11.99	34.83	26.48	156	0.51
50	16.32	34.87	240	250	11.32	34.79	26.57	147	0.58
70	15.03	34.91	210	300	10.83	34.75	26.63	142	0.66
100	13.60	34.92	180	400	9.80	34.67	26.75	131	0.80
149	12.77	34.89	166	500	8.31	34.64	26.96	110	0.93
248	11.34	34.79	148	600	7.32	34.62	27.10	98	1.05
348	10.47	34.72	138	700	6.43	34.59	27.19	88	1.15
446	9.00	34.64	120	800	5.84	34.57	27.25	83	1.25
543	7.76	34.63	103	1000	4.72	34.51	27.34	74	1.42
644	6.83	34.60	93	1200	3.90	34.58	27.48	61	1.58
744	6.11	34.58	85	1500	3.18	34.59	27.56	53	1.78
845	5.45	34.54	80	2000	2.28	34.65	27.69	41	2.07
				2500	1.86	34.64	27.72	39	2.32
547a)	8.09	34.64	107	3000	1.83	34.67	27.74	36	2.56
737	6.32	34.60	86						
936	5.05	34.50	79						
1133	4.16	34.58	63						
1330	3.45	34.58	57						
1530	3.12	-							
1729	2.63	34.62	46						
1926	2.40	34.65	42						
2125	2.06	34.64	40						
2322	1.93	34.70u							
2522	1.86	34.64	39						
2721	1.83	34.66	37						
2923	1.82	34.71u							
3124	1.86	34.67	37						
3330	1.86	34.65	38						
3436	1.86	34.61u							
3544	1.88	34.67	37						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

SPENCER F. BAIRD; November 26-27, 1954; 1537, 0225 GCT; 11°31'N, 88°04'W; sounding, 2830 fm; wind, 040°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°, 33°.

0	26.06	33.40	599	0	26.06	33.40	21.83	599	0.00
10	25.73	33.45	586	10	25.73	33.45	21.97	586	0.06
21	25.62	-		20	25.62	33.45	22.00	583	0.12
26	25.55	33.46	580	30	24.56	33.75	22.55	530	0.17
31	-	33.82		50	16.60	34.72	25.41	257	0.25
36	20.66	34.37	380	75	15.00	34.81	25.84	216	0.31
42	18.10	34.64	298	100	13.98	34.92	26.15	188	0.36
47	17.05	34.70	269	150	13.28	34.96	26.32	171	0.45
52	16.32	34.71	252	200	12.72	34.97	26.44	159	0.54
77	14.90	34.82	214	250	11.60	34.91	26.61	143	0.62
102	13.96	34.93	186	300	10.60	34.81	26.72	133	0.69
201	12.70	34.97	159	400	9.07	34.72	26.91	115	0.82
297	10.66	34.82	134	500	8.13	34.68	27.02	104	0.94
395	9.13	34.72	116	600	7.18	34.64	27.13	94	1.05
492	8.20	34.77u		700	6.30	34.62	27.23	84	1.15
590	7.27	34.64	95	800	5.70	34.60	27.30	79	1.24
688	6.43	34.63	85	1000	4.81	34.62	27.42	67	1.41
788	5.77	34.60	79	1200	3.98	34.62	27.51	59	1.55
889	5.30	34.63	72	1500	3.04	34.63	27.61	49	1.75
992	4.83	34.61	68	2000	2.18	34.67	27.71	39	2.02
				2500	1.84	34.69	27.76	35	2.25
682a)	6.42	34.61	87	3000	1.85	34.70	27.76	34	2.48
1032	4.66	34.62	65	4000	1.94	34.67	27.73	37	2.97
1384	3.34	34.63	52	5000	(2.07)	(34.65)	(27.71)	(40)	(3.54)
1741	2.62	34.64	45						
2083	2.10	34.68	38						
2468	1.86	34.69	35						
2835	1.84	34.69	35						
3207	1.86	34.71	34						
3585	1.90	34.68	36						
3975	1.94	34.67	37						
4374	1.98	34.72	34						
4580	2.00	34.69	36						
4792	2.02	-							
4900	2.05	34.66	39						

a) Overlapping casts; reconciliation of property curves when necessary.

SIO

ACAPULCO TRENCH

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OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
SPENCER F. BAIRD; December 4, 1954; 2325, 1843 GCT; 9°48.5'N, 93°11'W; sounding, 2010 fm; wind, 090°, force 4; weather, clear; sea, rough; wire angle, 31°, 34°.									
0	27.06	33.61	614	0	27.06	33.61	21.68	614	0.00
8	27.05	33.63	612	10	27.03	33.63	21.70	612	0.06
24	26.95	33.63	609	20	26.98	33.63	21.72	610	0.12
32	26.92	33.63	608	30	26.93	33.63	21.73	609	0.18
34	26.88	33.66	605	50	18.46	34.67	24.92	304	0.28
35	26.72	33.66	600	75	13.98	34.82	26.07	195	0.34
37	26.67	33.69	597	100	13.28	34.86	26.25	178	0.39
38	26.59	33.70	593	150	12.40	34.90	26.45	159	0.47
40	26.57	33.70	593	200	11.71	34.88	26.57	147	0.55
48	19.13	34.63	323	250	11.13	34.83	26.64	141	0.62
56	-	34.77		300	10.66	34.77	26.68	137	0.70
64	15.17	34.83	218	400	9.52	34.70	26.82	124	0.84
79	13.78	34.81	192	500	8.46	34.64	26.94	112	0.96
118	12.91	34.90	168	600	7.18	34.59	27.09	98	1.08
197	11.76	34.88	148	700	6.31	34.58	27.20	88	1.18
317	10.51	34.76	136	800	5.62	34.59	27.30	78	1.27
480	8.68	34.65	115	1000	4.68	34.56	27.38	70	1.44
647	6.76	34.60	92	1200	3.82	34.64	27.54	55	1.59
824	5.48	34.60	76	1500	3.07	34.65	27.62	48	1.77
1009	4.62	34.56	70	2000	2.27	34.68	27.72	39	2.04
				2500	1.84	34.68	27.75	36	2.28
593a)	7.26	34.56	101	3000	1.84	34.70	27.77	34	2.51
855	5.28	34.59	75						
1124	4.12	34.62	60						
1395	3.32	34.65	50						
1668	2.73	34.65	45						
1941	2.35	34.68	40						
2217	2.02	34.67	38						
2496	1.85	34.68	36						
2778	1.84	34.69	35						
3067	1.83	34.70	34						
3364	1.86	34.70	34						
3467	1.86	34.70	34						
3576	1.86	34.66	37						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

17

SPENCER F. BAIRD; December 6, 1954; 1750, 2023, 2203 GCT; 12°13'N, 98°44'W; sounding, 1965 fm; wind, 060°, force 2; weather, missing; sea, moderate; wire angle, 45°, 12°, 52°.

0	27.94	33.55	646	0	27.94	33.55	21.35	646	0.00
18	26.70	33.68	598	10	27.50	33.63	21.55	626	0.06
36	25.54	33.71	561	20	26.52	33.69	21.91	592	0.12
65	23.31	33.92	483	30	25.89	33.70	22.11	573	0.18
103	17.81	34.74	283	50	24.12	33.79	22.71	515	0.29
129	13.78	34.89	186	75	23.19	34.16	23.26	462	0.41
175	12.67	34.90	164	100	19.15	34.71	24.78	318	0.51
273	11.24	34.81	144	150	13.14	34.90	26.31	173	0.64
477	8.00	34.64	106	200	12.25	34.88	26.47	157	0.72
				250	11.53	34.83	26.56	148	0.80
664	6.34	34.57	89	300	10.78	34.79	26.67	138	0.88
845	5.24	34.56	76	400	9.14	34.70	26.88	118	1.01
1030	4.24	34.55	66	500	7.70	34.63	27.05	102	1.13
1220	3.69	34.57	60	600	6.82	34.59	27.14	93	1.24
				700	6.12	34.56	27.21	87	1.34
865a)	5.32	34.54	79	800	5.54	34.55	27.28	81	1.43
1041	4.45	34.56	68	1000	4.52	34.55	27.39	69	1.60
1221	3.77	34.57	60	1200	3.80	34.57	27.49	61	1.75
1411	3.28	34.64	50	1500	3.10	34.64	27.61	49	1.94
1603	-	34.64		2000	2.28	34.68	27.71	39	2.22
1811	2.47	34.67	41						
2022	2.24	34.68	39						
2265	1.95	34.69	36						
2339	1.90	34.70	35						

18

SPENCER F. BAIRD; December 8-9, 1954; 1218, 2315, 0242 GCT; 11°37'N, 103°39'W; sounding, 1650 fm; wind, 070°, force 3; weather, partly cloudy; sea, rough; wire angle, 37°, 57°, 53°.

0	28.39	33.31	677	0	28.39	33.31	21.02	677	0.00
8	28.41	33.32	677	10	28.37	33.32	21.03	676	0.07
20	28.38	33.32	676	20	28.38	33.32	21.03	676	0.14
40	28.40	33.33	676	30	28.39	33.32	21.03	676	0.20
59	22.90	34.40	437	50	27.83	33.36	21.24	656	0.34
76	16.74	34.86	250	75	16.84	34.86	25.46	253	0.45
142	13.52	34.88	181	100	15.32	34.87	25.82	219	0.51
282	11.46	34.84	146	150	13.38	34.88	26.24	179	0.61
606	7.05	34.60	96	200	12.84	34.89	26.36	168	0.70
				250	12.16	34.88	26.48	156	0.78
231a)	12.52	34.89	162	300	11.17	34.81	26.62	143	0.86
393	9.95	34.70	131	400	9.77	34.69	26.77	129	1.01
545	7.46	34.62	100	500	8.00	34.64	27.01	106	1.13
732	6.05	34.60	83	600	7.09	34.60	27.11	96	1.24
951	4.92	34.57	72	700	6.33	34.60	27.22	86	1.34
1209	4.19	34.60	62	800	5.59	34.59	27.30	78	1.43
1493	3.45	34.58	57	1000	4.74	34.57	27.39	70	1.60
				1200	4.20	34.60	27.47	62	1.76
1859	2.66	34.64	45	1500	3.40	34.58	27.53	56	1.97
2127	2.08	34.64	40	2000	2.32	34.64	27.68	42	2.27
2405	1.86	34.67	37	2500	1.85	34.67	27.74	36	2.52
2694	1.82	34.65	38						
2793	1.86	34.67	37						
2894	1.80	34.67	36						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m
19	SPENCER F. BAIRD; December 9, 1954; 1529, 2015 GCT; 10°52.5'N, 105°08'W; sounding, 1800 fm; wind, 080°, force 2; weather, partly cloudy; sea, rough; wire angle, 16°, 20°.								
0	27.4	33.65	622	0	27.4	33.65	21.60	622	0.00
10	27.36	33.66	620	10	27.36	33.66	21.62	620	0.06
20	27.34	33.70	616	20	27.34	33.70	21.65	616	0.12
30	25.33	33.98	536	30	25.33	33.98	22.49	536	0.18
50	16.56	34.81	250	50	16.56	34.81	25.49	250	0.26
70	14.30	34.88	197	75	14.00	34.88	26.11	191	0.32
99	12.93	34.87	171	100	12.92	34.87	26.33	171	0.36
194	11.44	34.82	147	150	12.00	34.84	26.48	156	0.45
334	10.24	34.75	132	200	11.38	34.82	26.58	146	0.52
474	8.28	34.64	110	250	10.93	34.79	26.64	140	0.60
759	-	34.60		300	10.52	34.77	26.70	135	0.67
956	4.74	34.60	68	400	9.42	34.70	26.83	122	0.80
				500	7.96	34.64	27.02	105	0.93
562a)	7.39	34.64	97	600	7.12	34.64	27.14	93	1.04
842	5.38	34.60	75	700	6.40	34.61	27.21	86	1.14
1121	4.19	34.60	62	800	5.75	34.60	27.29	79	1.23
1407	3.40	34.64	52	1000	4.57	34.60	27.43	66	1.39
1679	2.72	34.63	46	1200	3.99	34.60	27.49	60	1.54
1961	2.25	34.66	40	1500	3.14	34.64	27.61	49	1.74
2246	1.94	34.74	32	2000	2.20	34.66	27.71	40	2.01
2534	1.86	34.67	37	2500	1.87	34.67	27.74	37	2.25
2825	1.85	34.70	34	3000	1.78	34.70	27.77	34	2.48
3020	1.77	34.70	34						
3121	1.74	34.66	36						
20	SPENCER F. BAIRD; December 13, 1954; 1435, 2028 GCT; 12°13'N, 111°04'W; sounding, 2170 fm; wind, 070°, force 3; weather, drizzle; sea, moderate; wire angle, 20°, 29°.								
0	27.00	33.30	635	0	27.00	33.30	21.46	635	0.00
9	26.99	33.28	636	10	26.98	33.28	21.45	635	0.06
29	27.00	33.27	637	20	26.99	33.27	21.44	637	0.13
48	25.19	33.94	535	30	27.00	33.27	21.44	637	0.19
58	21.52	34.53	391	50	24.58	34.07	22.79	508	0.31
67	18.75	34.66	312	75	17.67	34.70	25.14	283	0.41
76	17.58	34.70	281	100	14.08	34.82	26.05	197	0.47
86	16.32	34.71	252	150	12.17	34.84	26.45	159	0.56
95	14.59	34.80	209	200	11.40	34.77	26.54	150	0.64
140	12.40	34.84	163	250	10.83	34.73	26.62	143	0.71
233	11.01	34.74	146	300	10.32	34.72	26.70	135	0.78
373	9.56	34.70	125	400	9.29	34.69	26.85	121	0.92
666	6.14	34.60	84	500	8.25	34.65	26.98	108	1.04
				600	6.96	34.61	27.14	94	1.15
547a)	7.74	34.63	103	700	5.90	34.59	27.26	82	1.25
819	5.21	34.58	75	800	5.30	34.58	27.33	76	1.34
1096	4.09	34.60	61	1000	4.40	34.59	27.44	65	1.50
1371	3.42	34.61	54	1200	3.82	34.60	27.51	58	1.64
1740	2.56	34.64	44	1500	3.10	34.62	27.59	50	1.84
2109	2.09	34.60	44	2000	2.18	34.61	27.67	44	2.12
2480	1.91	34.64	39	2500	1.89	34.65	27.72	38	2.38
2854	1.76	34.69	34	3000	1.72	34.68	27.76	35	2.61
3229	1.67	34.66	36						
3611	1.54	34.67	34						
3710	1.54	34.69	33						

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED			COMP	INTERPOLATED			COMPUTED		
Z	T	S	δ_T	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	cl/ton	m	°C	‰	g/L	cl/ton	dyn m

21

SPENCER F. BAIRD; December 17-18, 1954; 1853, 1246, 0004 GCT;[a] 21°58'N, 116°03'W; sounding, 2125 fm; wind, 040°, force 2; weather, partly cloudy; sea, rough; wire angle, 08°, 18°, 04°.

0	20.50	33.72	423	0	20.50	33.72	23.68	423	0.00
10	20.36	33.69	422	10	20.36	33.69	23.69	422	0.04
41	20.34	33.68	422	20	20.34	33.70	23.70	420	0.08
72	14.44	33.25	319	30	20.34	33.70	23.70	420	0.13
102	11.87	33.27	269	50	17.50	33.27	24.09	383	0.21
246	10.09	34.44	152	75	14.24	33.24	24.80	316	0.29
486	7.06	34.45	107	100	12.32	33.28	25.21	276	0.37
774	5.15	34.49	81	150	10.49	33.85	25.99	202	0.49
1645	2.68	34.62	47	200	10.66	34.32	26.33	171	0.59
2228	1.93	34.64	39	250	10.02	34.44	26.53	151	0.67
2815	1.69	34.68	35	300	9.22	34.45	26.67	138	0.74
3412	1.57	34.70	32	400	7.94	34.45	26.87	119	0.88
3719	1.54	34.70	32	500	6.95	34.45	27.01	105	1.00
				600	6.23	34.47	27.13	95	1.11
787b)	5.37	34.51	82	700	5.67	34.49	27.21	87	1.21
1075	4.09	34.52	67	800	5.17	34.50	27.28	80	1.30
1371	3.36	34.59	55	1000	4.32	34.51	27.38	70	1.47
1679	2.72	34.60	49	1200	3.70	34.55	27.48	61	1.62
				1500	3.00	34.60	27.59	51	1.82
40b)	20.30	33.73	417	2000	2.13	34.63	27.69	42	2.10
47	17.26	33.30	376	2500	1.78	34.66	27.74	37	2.34
49	17.16	33.28	375	3000	1.62	34.69	27.77	33	2.56
51	16.76	33.27	367						
53	16.58	33.30	361						
55	16.21	33.24	357						
57	16.04	33.23	354						
68	14.97	33.25	330						
79	14.29	33.23	318						
104	12.26	33.30	274						
154	10.56	33.91	199						
191	10.56	34.27	173						

22

SPENCER F. BAIRD; December 18, 1954; 2251, 1943 GCT; 24°37'N, 116°33'W; sounding, 2120 fm; wind, 360°, force 4; weather, overcast; sea, rough; wire angle, 20°, 16°.

0	21.20	33.97	423	0	21.20	33.97	23.68	423	0.00
10	20.98	33.97	417	10	20.98	33.97	23.74	417	0.04
38	20.98	33.96	418	20	20.98	33.97	23.74	417	0.08
48	20.93	34.00	414	30	20.98	33.96	23.73	418	0.13
57	16.05	33.58	329	50	20.92	34.00	23.78	413	0.21
66	13.73	33.60	279	75	12.58	33.52	25.35	263	0.29
75	12.58	33.52	263	100	11.52	33.77	25.74	226	0.36
94	11.52	33.70	231	150	11.17	34.25	26.18	184	0.46
183	10.68	34.48	159	200	10.51	34.52	26.51	153	0.55
273	9.65	34.55	137	250	10.17	34.56	26.60	145	0.62
412	7.68	34.39	120	300	9.11	34.52	26.74	131	0.69
551	6.32	34.42	100	400	7.82	34.39	26.84	122	0.83
747	5.13	34.45	83	500	6.74	34.41	27.01	106	0.95
				600	6.08	34.43	27.11	96	1.06
244b)	10.24	34.56	146	700	5.57	34.45	27.19	88	1.16
667	5.80	34.45	91	800	4.90	34.45	27.27	81	1.25
1048	4.10	34.53	67	1000	4.22	34.51	27.40	69	1.42
1432	3.14	34.59	53	1200	3.70	34.56	27.49	60	1.57
1817	2.36	34.66	41	1500	2.97	34.60	27.59	51	1.76
2200	2.01	34.68	37	2000	2.17	34.67	27.72	39	2.04
2585	1.78	34.66	37	2500	1.82	34.66	27.74	37	2.28
2973	1.66	34.70	33	3000	1.64	34.70	27.78	33	2.50
3365	1.61	34.69	33						
3560	1.61	34.70	32						
3760	1.58	34.67	35						
3873	1.58	34.70	32						

a) The time interval between each cast was nearly 6 hours; total time on station was almost 12 hours.

b) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m
HUGH M. SMITH; January 16, 1954; 0812 GCT; 21°23'N, 158°18'W; sounding, 700 fm; wind, calm; weather, partly cloudy; sea, calm; wire angle, 00°.											1
0	23.88	35.25			23.89	0	23.88	35.25	23.89	403	0.00
9	23.87	35.23			23.87	10	23.87	35.23	23.87	404	0.04
24	23.86	35.24			23.88	20	23.86	35.24	23.88	404	0.08
48	23.78	35.25			23.92	30	23.85	35.24	23.89	404	0.12
82	23.53	35.28			24.01	50	23.78	35.25	23.92	402	0.20
198	17.65	34.82			25.24	75	23.62	35.28	23.99	396	0.30
293	12.52	34.23			25.91	100	22.89	35.25	24.17	379	0.40
394	8.03	34.14			26.62	125	21.83	35.18	24.42	356	0.49
490	6.54	34.15			26.83	150	20.00	35.08	24.84	317	0.57
592	5.74	34.28			27.04	200	17.54	34.81	25.26	279	0.72
788	4.74	34.42			27.27	250	14.81	34.40	25.57	250	0.86
979	4.11	34.52			27.41	300	12.14	34.21	25.97	212	0.97
						400	7.89	34.14	26.64	148	1.15
						500	6.44	34.16	26.85	127	1.29
						600	5.69	34.29	27.05	109	1.41
						700	5.12	34.37	27.18	97	1.51
						800	4.70	34.43	27.28	89	1.60
HUGH M. SMITH; January 16, 1954; 1457 GCT; 21°36'N, 158°59'W; sounding, 2200 fm; wind, 160°, 10 kt; weather, partly cloudy; sea, smooth; wire angle, 00°.											2
0	23.77	35.26			23.93	0	23.77	35.26	23.93	399	0.00
9	23.78	35.25			23.92	10	23.78	35.25	23.92	400	0.04
24	23.78	35.24			23.91	20	23.78	35.24	23.91	401	0.08
48	23.80	35.25			23.91	30	23.80	35.24	23.90	402	0.12
198	18.39	34.94			25.15	50	23.78	35.25	23.92	402	0.20
293	11.92	34.13			25.95	75	23.78	35.26	23.92	402	0.30
394	8.00	34.06			26.56	100	23.20	35.25	24.09	388	0.40
490	6.75	34.11			26.77	125	21.99	35.20	24.39	359	0.49
590	5.85	34.19			26.95	150	20.96	35.14	24.63	337	0.58
786	4.80	34.42			27.26	200	18.25	34.92	25.17	287	0.74
977	4.12	34.48			27.38	250	14.83	34.42	25.58	249	0.87
						300	11.56	34.11	26.00	209	0.98
						400	7.88	34.06	26.57	154	1.17
						500	6.65	34.12	26.79	133	1.31
						600	5.78	34.20	26.97	117	1.43
						700	5.18	34.32	27.14	102	1.54
						800	4.75	34.42	27.27	90	1.64
HUGH M. SMITH; January 18, 1954; 0532 GCT; 22°35'N, 160°03'W; sounding, 2500 fm; wind, 180°, 14 kt; weather, partly cloudy; sea, slight; wire angle, 16°.											3
0	23.16	35.26	5.03	0.39	24.10	0	23.16	35.26	24.10	382	0.00
8	23.18	35.28	4.89	0.43	24.11	10	23.15	35.28	24.12	381	0.04
20	23.00	35.26	4.88	0.46	24.15	20	23.00	35.26	24.15	378	0.08
40	22.98	35.26	4.87	0.40	24.16	30	22.97	35.26	24.16	378	0.11
72	22.98	35.27	- a)	- a)	24.16	50	22.98	35.26	24.16	379	0.19
91	22.96	35.27	4.90	0.31	24.17	75	22.99	35.27	24.16	379	0.28
163	20.02	35.09	4.60	0.45	24.84	100	22.85	35.26	24.19	377	0.38
243	16.64	34.69	4.44	0.59	25.38	125	21.86	35.21	24.44	355	0.47
329	11.06	34.13	4.14	1.46	26.11	150	20.72	35.14	24.70	331	0.56
411	8.72	34.07	3.90	2.03	26.46	200	18.57	34.92	25.09	295	0.71
500	6.92	34.09	2.12	2.79	26.73	250	16.16	34.64	25.45	261	0.85
677	5.36	34.31	0.97	3.17	27.11	300	12.88	34.30	25.89	219	0.97
860	4.58	34.42	1.20	2.99	27.28	400	8.93	34.06	26.41	170	1.17
						500	6.92	34.09	26.73	139	1.32
						600	5.82	34.21	26.97	117	1.45
						700	5.26	34.32	27.13	103	1.56
						800	4.84	34.38	27.22	94	1.66

a) Sample lost.

HBL

HMS-25

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
4	HUGH M. SMITH; January 19, 1954; 0426 GCT; 23°42'N, 162°26'W; sounding, 2500 fm; wind, 280°, 30 kt; weather, partly cloudy; sea, very rough; wire angle, 35°.										
0	23.20	35.27	4.85		24.10	0	23.20	35.27	24.10	382	0.00
8	23.19	35.26	4.87		24.10	10	23.19	35.26	24.10	383	0.04
24	23.21	35.28	4.83		24.11	20	23.20	35.27	24.10	383	0.08
48	23.20	35.29	4.88		24.12	30	23.22	35.28	24.10	383	0.11
96	22.78	35.28	4.74		24.23	50	23.21	35.29	24.11	383	0.19
121	21.68	35.18	4.72		24.46	75	23.13	35.30	24.14	381	0.29
194	17.98	34.86	4.47		25.19	100	22.63	35.27	24.26	371	0.38
291	12.48	34.22	4.32		25.91	125	21.49	35.16	24.50	349	0.47
386	9.04	34.07	4.11		26.40	150	20.28	35.06	24.75	326	0.56
486	7.43	34.04	3.09		26.62	200	17.80	34.82	25.20	284	0.71
583	5.84	34.11	1.79		26.89	250	14.10	34.38	25.71	236	0.84
991	3.82	34.43	1.10		27.37	300	12.07	34.19	25.97	212	0.95
						400	8.75	34.06	26.44	167	1.14
						500	7.19	34.05	26.67	146	1.30
						600	5.76	34.12	26.91	123	1.43
						700	4.95	34.24	27.10	105	1.54
						800	4.20	34.32	27.25	91	1.64
5	HUGH M. SMITH; January 20, 1954; 0506 GCT; 24°59'N, 165°02'W; sounding, 2700 fm; wind, 270°, 18 kt; weather, partly cloudy; sea, rough; wire angle, 35°.										
0	22.86	35.44	5.29	0.16	24.33	0	22.86	35.44	24.33	361	0.00
8	22.84	35.43	4.83	0.10	24.33	10	22.84	35.43	24.33	361	0.04
19	22.87	35.44	4.83	0.14	24.32	20	22.87	35.44	24.32	362	0.07
38	22.84	35.45	4.78	0.19	24.34	30	22.86	35.45	24.33	361	0.11
92	22.64	35.49	4.79	0.12	24.43	50	22.79	35.46	24.36	359	0.18
129	22.61	35.49	4.64	0.18	24.44	75	22.70	35.48	24.40	356	0.27
151	20.55	35.18	4.56	0.22	24.77	100	22.63	35.52	24.45	352	0.36
225	16.62	34.73	4.55	0.64	25.42	125	22.62	35.51	24.45	354	0.45
304	12.94	34.34	4.37	1.16	25.91	150	20.66	35.20	24.76	325	0.53
382	10.37	34.15	4.06	1.59	26.25	200	17.66	34.83	25.24	280	0.68
463	8.44	34.07	3.60	2.04	26.50	250	15.37	34.59	25.59	248	0.81
631	5.71	34.15	1.43	2.88	26.94	300	13.11	34.36	25.89	219	0.93
809	4.62	34.35	1.13	3.02	27.23	400	9.89	34.12	26.30	181	1.13
						500	7.69	34.07	26.61	152	1.30
						600	6.09	34.12	26.87	127	1.44
						700	5.29	34.23	27.05	110	1.56
						800	4.68	34.34	27.21	95	1.66
6	HUGH M. SMITH; January 20, 1954; 1715 GCT; 26°30'N, 165°02'W; sounding, 2500 fm; wind, 250°, 22 kt; weather, partly cloudy; sea, rough; wire angle, 20°.										
0	21.00	35.44	4.98	0.11	24.85	0	21.00	35.44	24.85	311	0.00
9	21.02	35.44	4.94	0.14	24.84	10	21.02	35.44	24.84	312	0.03
27	21.04	35.47	4.88	0.19	24.86	20	21.03	35.46	24.85	311	0.06
54	21.06	35.45	4.97	0.20	24.84	30	21.04	35.47	24.86	311	0.09
117	21.04	35.45	4.88	0.10	24.84	50	21.06	35.46	24.85	313	0.16
149	20.98	35.46	4.91	0.10	24.87	75	21.07	35.44	24.83	316	0.23
217	15.68	34.61	4.73	0.51	25.54	100	21.06	35.44	24.83	316	0.31
325	12.36	34.31	4.63	1.03	26.00	125	21.03	35.46	24.85	315	0.39
428	10.04	34.17	4.60	1.45	26.32	150	20.92	35.45	24.88	314	0.47
535	7.47	34.02	3.84	2.11	26.60	200	17.22	34.80	25.33	272	0.62
640	5.59	34.04	2.35	2.77	26.87	250	14.29	34.48	25.74	233	0.74
847	4.02	34.23	0.70	3.20	27.19	300	13.00	34.36	25.92	217	0.86
1071	3.44	34.42	0.85	3.12	27.40	400	10.64	34.20	26.24	188	1.06
						500	8.28	34.06	26.51	161	1.23
						600	6.23	34.02	26.77	136	1.38
						700	4.94	34.09	26.98	116	1.51
						800	4.21	34.18	27.13	101	1.62
						1000	3.62	34.36	27.34	83	1.80

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; January 21, 1954; 0407, 0448 GCT; 28°03'N, 164°57'W; sounding, 2800 fm; wind, 270°, 32 kt; weather, moderate to heavy rain showers; sea, rough; wire angle, 36°, 48°. 7

0a)	21.32	35.50	4.93	0.08	24.81	0	21.32	35.50	24.81	315	0.00
8	21.34	35.48	4.89	0.10	24.79	10	21.34	35.47	24.78	318	0.03
23	21.36	35.44	4.94	0.10	24.75	20	21.36	35.45	24.76	321	0.06
44	21.37	35.47	4.97	0.11	24.77	30	21.36	35.44	24.75	322	0.10
104	21.36	35.46	4.93	0.11	24.76	50	21.37	35.47	24.77	320	0.16
126	21.35	35.47	4.94	0.23	24.77	75	21.37	35.47	24.77	321	0.24
178	17.96	34.88	4.65	0.27	25.21	100	21.36	35.46	24.76	323	0.32
268	14.42	34.49	4.72	0.69	25.72	125	21.36	35.47	24.77	323	0.40
						150	20.02	35.24	24.96	306	0.48
321b)	12.90	34.38	-	1.12	25.95	200	16.90	34.74	25.36	269	0.62
						250	14.96	34.53	25.64	243	0.75
446a)	10.06	34.17	4.66	1.49	26.31	300	13.47	34.42	25.87	222	0.87
532	7.98	34.05	4.03	1.91	26.55	400	11.06	34.24	26.19	192	1.08
						500	8.73	34.09	26.47	166	1.25
849b)	4.20	34.20	0.57	3.49	27.15	600	6.80	33.99	26.67	146	1.41
						700	5.20	34.06	26.93	121	1.54
						800	4.40	34.17	27.11	104	1.66

HUGH M. SMITH; January 21, 1954; 2011 GCT; 29°37'N, 164°59'W; sounding, 2500 fm; wind, 260°, 29 kt; weather, cloudy; sea, very high; wire angle, 45°. 8

0	19.64	35.28	5.09	0.38	25.09	0	19.64	35.28	25.09	288	0.00
8	19.65	35.26	5.11	0.42	25.07	10	19.65	35.26	25.07	290	0.03
23	19.66	35.26	5.09	0.52	25.07	20	19.66	35.26	25.07	291	0.06
44	19.68	35.28	5.19	0.46	25.08	30	19.67	35.27	25.07	291	0.09
89	19.64	35.27	5.19	0.40	25.08	50	19.68	35.29	25.09	290	0.15
134	17.67	34.97	4.91	0.58	25.35	75	19.66	35.29	25.09	291	0.22
178	15.60	34.60	4.85	0.74	25.55	100	19.64	35.21	25.04	297	0.29
267	13.16	34.38	4.97	1.09	25.90	125	18.15	35.04	25.28	274	0.36
446	9.67	34.13	4.66	1.58	26.35	150	16.89	34.83	25.43	261	0.43
534	7.50	34.01	3.85	2.22	26.59	200	14.87	34.51	25.64	241	0.55
716	5.10	34.04	1.90	3.24	26.93	250	13.52	34.39	25.83	224	0.67
917	3.96	34.22	0.79	-	27.19	300	12.49	34.32	25.99	210	0.78
						400	10.54	34.18	26.24	188	0.98
						500	8.32	34.05	26.50	163	1.15
						600	6.39	33.99	26.73	141	1.31
						700	5.23	34.03	26.90	124	1.44
						800	4.62	34.12	27.04	111	1.56

HUGH M. SMITH; January 22, 1954; 0710 GCT; 30°57'N, 164°58'W; sounding, 3100 fm; wind, 270°, 25 kt; weather, cloudy; sea, high; wire angle, 25°. 9

0	17.29	34.73	5.52	0.20	25.26	0	17.29	34.73	25.26	272	0.00
9	17.28	34.73	5.36	0.18	25.26	10	17.28	34.73	25.26	272	0.03
26	17.31	34.71	5.43	0.24	25.24	20	17.30	34.72	25.25	274	0.05
54	17.32	34.74	5.43	0.22	25.26	30	17.32	34.71	25.23	275	0.08
107	16.29	34.59	5.24	0.37	25.38	50	17.33	34.74	25.25	274	0.14
161	14.24	34.45	4.91	0.63	25.73	75	17.30	34.70	25.23	277	0.21
216	13.27	34.41	5.08	0.79	25.90	100	16.49	34.62	25.36	265	0.27
323	11.70	34.29	5.11	0.98	26.11	125	15.60	34.54	25.50	253	0.34
428	9.76	34.16	4.83	1.45	26.36	150	14.65	34.47	25.66	238	0.40
537	7.33	34.04	4.11	1.99	26.64	200	13.49	34.42	25.86	220	0.51
641	5.64	33.98	3.11	2.55	26.81	250	12.77	34.38	25.98	210	0.62
847	4.08	34.16	1.31	3.04	27.13	300	12.04	34.32	26.07	202	0.72
1064	3.38	34.27	-	-	27.29	400	10.32	34.20	26.29	182	0.92
						500	8.14	34.08	26.55	158	1.09
						600	6.23	33.99	26.75	139	1.24
						700	5.03	34.02	26.92	122	1.37
						800	4.29	34.10	27.06	108	1.48
						1000	3.59	34.24	27.25	91	1.68

a) First cast.
b) Second cast.

HBL

HMS-25

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
10	HUGH M. SMITH; January 22, 1954; 1902 GCT; 32°20'N, 164°48'W; sounding, 2800 fm; wind, 260°, 27 kt; weather, partly cloudy; sea, high; wire angle, 35°.										
0	16.66	34.64	5.38	0.14	25.34	0	16.66	34.64	25.34	265	0.00
8	16.66	34.63	5.48	0.18	25.33	10	16.66	34.63	25.33	266	0.03
24	16.69	34.63	5.51	0.15	25.32	20	16.68	34.63	25.32	267	0.05
46	16.70	34.65	5.52	0.09	25.34	30	16.70	34.64	25.32	267	0.08
84	16.68	34.65	5.57	0.12	25.34	50	16.71	34.65	25.33	266	0.13
138	15.69	34.51	5.50	0.32	25.46	75	16.71	34.66	25.34	267	0.20
183	14.36	34.50	5.23	0.65	25.74	100	16.48	34.61	25.36	266	0.27
274	12.66	34.36	5.14	0.73	25.98	125	16.01	34.54	25.41	261	0.33
362	11.28	34.27	5.34	0.97	26.18	150	15.34	34.50	25.53	250	0.40
455	9.22	34.12	4.88	1.41	26.41	200	13.98	34.48	25.81	225	0.52
543	7.24	34.00	4.15	2.01	26.62	250	13.03	34.40	25.94	214	0.62
725	4.86	34.02	2.22	2.85	26.94	300	12.27	34.33	26.04	205	0.73
900	3.76	34.23	0.71	3.24	27.22	400	10.48	34.21	26.27	184	0.92
						500	8.18	34.05	26.52	160	1.10
						600	6.30	33.98	26.73	141	1.25
						700	5.08	34.00	26.90	124	1.38
						800	4.39	34.11	27.06	108	1.50
11	HUGH M. SMITH; January 23, 1954; 0820 GCT; 33°57'N, 164°59'W; sounding, 3200 fm; wind, 250°, 19 kt; weather, partly cloudy; sea, rough; wire angle, missing.										
0	15.92	34.42	5.64	0.13	25.34	0	15.92	34.42	25.34	264	0.00
9	15.94	34.42	5.65	0.08	25.33	10	15.94	34.42	25.33	265	0.03
23	15.95	34.42	5.66	0.08	25.33	20	15.95	34.42	25.33	266	0.05
44	15.96	34.41	5.70	0.12	25.32	30	15.95	34.42	25.33	266	0.08
75	15.94	34.43	5.62	0.18	25.34	50	15.98	34.41	25.32	268	0.13
102	15.48	34.41	5.57	0.23	25.43	75	15.94	34.43	25.34	266	0.20
181	12.54	34.32	5.38	0.69	25.98	100	15.53	34.41	25.42	260	0.27
270	11.48	34.25	5.29	0.85	26.12	125	14.65	34.38	25.59	244	0.33
364	10.14	34.17	4.94	1.17	26.30	150	13.08	34.36	25.90	215	0.39
454	8.74	34.06	4.61	1.51	26.44	200	12.22	34.30	26.02	204	0.49
549	6.48	33.96	- r	2.15	26.69	250	11.62	34.26	26.11	197	0.59
736	4.53	34.06	1.73	2.90	27.01	300	11.07	34.23	26.18	191	0.69
921	3.77	34.30	0.97	3.12	27.28	400	9.63	34.13	26.36	176	0.87
						500	7.64	34.00	26.56	156	1.04
						600	5.72	33.96	26.79	134	1.18
						700	4.73	34.02	26.95	118	1.31
						800	4.27	34.14	27.10	105	1.42
12	HUGH M. SMITH; January 23, 1954; 2148 GCT; 35°29'N, 165°01'W; sounding, 2900 fm; wind, 160°, 19 kt; weather, cloudy; sea, moderate; wire angle, 24°.										
0	15.05	34.37	5.61	0.20	25.49	0	15.05	34.37	25.49	250	0.00
9	15.06	34.37	5.61	0.17	25.49	10	15.06	34.37	25.49	250	0.02
23	15.08	34.37	5.64	0.20	25.49	20	15.08	34.37	25.49	251	0.05
50	15.08	34.36	5.66	0.21	25.48	30	15.08	34.37	25.49	251	0.08
99	15.06	34.36	5.64	0.18	25.48	50	15.08	34.36	25.48	252	0.13
147	13.14	34.29	5.31	0.56	25.83	75	15.08	34.36	25.48	253	0.19
196	12.58	34.29	5.28	0.67	25.95	100	15.05	34.36	25.49	253	0.25
293	11.30	34.21	5.38	0.86	26.13	125	14.05	34.32	25.67	236	0.31
396	10.14	34.16	5.05	1.14	26.29	150	13.09	34.29	25.84	220	0.37
495	8.27	34.06	4.34	1.58	26.52	200	12.53	34.29	25.96	211	0.48
593	6.20	33.96	3.52	2.08	26.73	250	11.87	34.25	26.05	203	0.58
789	4.46	34.06	1.70	2.75	27.01	300	11.23	34.21	26.14	195	0.68
991	3.66	34.24	0.71	3.13	27.24	400	10.07	34.16	26.30	181	0.87
						500	8.16	34.05	26.53	160	1.04
						600	6.10	33.96	26.74	139	1.19
						700	4.99	33.98	26.89	124	1.32
						800	4.42	34.07	27.02	112	1.44

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED			
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD	
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m	
HUGH M. SMITH; January 24, 1954; 1528 GCT; 37°44'N, 165°01'W; sounding, 3000 fm; wind, 130°, 15 kt; weather, partly cloudy; sea, very rough; wire angle, 10°.												13
0	13.18	34.23	5.81	0.51	25.78	0	13.18	34.23	25.78	222	0.00	
9	13.17	34.22	5.87	0.40	25.77	10	13.17	34.22	25.77	223	0.02	
24	13.18	34.23	5.83	0.44	25.78	20	13.18	34.23	25.78	223	0.04	
53	13.19	34.25	5.89	0.45	25.79	30	13.20	34.24	25.78	223	0.07	
106	12.42	34.22	5.80	0.49	25.92	50	13.20	34.25	25.79	223	0.11	
158	12.29	34.32	5.61	0.67	26.03	75	12.89	34.24	25.84	219	0.17	
211	11.44	34.28	5.40	0.83	26.15	100	12.52	34.22	25.91	213	0.22	
316	9.51	34.15	5.46	1.10	26.39	125	12.38	34.26	25.96	208	0.27	
426	7.96	34.01	5.47	1.42	26.52	150	12.31	34.30	26.01	204	0.32	
530	6.32	33.98	3.84	2.02	26.73	200	11.65	34.30	26.13	194	0.42	
635	4.94	34.01	2.45	2.56	26.92	250	10.72	34.24	26.25	183	0.52	
838	3.90	34.22	1.16	3.05	27.20	300	9.80	34.17	26.36	174	0.61	
1042	3.30	34.32	0.67	3.13	27.34	400	8.31	34.04	26.49	162	0.78	
						500	6.79	33.98	26.67	146	0.93	
						600	5.35	33.99	26.86	127	1.07	
						700	4.47	34.07	27.02	111	1.18	
						800	4.00	34.18	27.15	99	1.29	
						1000	3.42	34.30	27.31	85	1.47	
HUGH M. SMITH; January 24, 1954; 2147 GCT; 38°29'N, 164°58'W; sounding, 3000 fm; wind, 170°, 17 kt; weather, cloudy; sea, moderate; wire angle, 24°.												14
0	13.11	34.23	5.84	0.47	25.79	0	13.11	34.23	25.79	221	0.00	
8	13.08	34.23	5.89	0.45	25.80	10	13.07	34.23	25.80	220	0.02	
22	12.98	34.25	5.87	0.41	25.84	20	13.00	34.25	25.83	218	0.04	
49	12.72	34.23	5.91	0.46	25.87	30	12.90	34.25	25.85	217	0.07	
96	12.63	34.25	5.82	0.52	25.90	50	12.72	34.23	25.87	215	0.11	
141	12.57	34.26	5.74	0.54	25.92	75	12.64	34.24	25.89	214	0.16	
193	11.66	34.28	5.36	0.82	26.11	100	12.64	34.25	25.90	213	0.22	
289	10.32	34.21	5.13	1.08	26.30	125	12.63	34.26	25.91	213	0.27	
391	8.84	34.10	- r	1.37	26.46	150	12.44	34.26	25.95	210	0.32	
489	6.90	34.00	5.09	1.91	26.67	200	11.56	34.28	26.13	194	0.42	
587	5.55	33.96	3.17	2.31	26.81	250	10.84	34.25	26.24	184	0.52	
780	4.20	34.11	1.41	2.99	27.08	300	10.18	34.20	26.32	178	0.61	
989	3.53	34.24	0.72	3.24	27.25	400	8.66	34.09	26.48	163	0.78	
						500	6.72	33.99	26.68	144	0.93	
						600	5.42	33.97	26.83	130	1.07	
						700	4.61	34.03	26.97	116	1.19	
						800	4.14	34.12	27.10	105	1.30	
HUGH M. SMITH; January 25, 1954; 0850, 0913 GCT; 38°59'N, 163°14'W; sounding, 3000 fm; wind, 250°, 16 kt; weather, partly cloudy; sea, moderate; wire angle, 23°, 20°.												15
0	12.72	34.22	5.96	0.51	25.86	0	12.72	34.22	25.86	215	0.00	
9	12.72	34.22	5.96	0.47	25.86	10	12.72	34.22	25.86	215	0.02	
23	12.70	34.23	5.95	0.52	25.88	20	12.70	34.23	25.88	214	0.04	
45	12.72	34.23	5.87	0.49	25.87	30	12.70	34.23	25.88	214	0.06	
100	12.67	34.24	5.80	0.54	25.89	50	12.72	34.23	25.87	215	0.11	
136	11.99	34.29	5.50	0.72	26.06	75	12.70	34.23	25.88	215	0.16	
186	11.14	34.23	5.33	0.92	26.17	100	12.67	34.24	25.89	215	0.21	
278	10.06	34.17	5.29	1.10	26.31	125	12.22	34.28	26.01	204	0.27	
						150	11.74	34.28	26.10	196	0.32	
382	8.40	34.08	5.08	1.46	26.51	200	10.97	34.22	26.19	188	0.41	
475	6.44	33.95	3.96	2.00	26.69	250	10.20	34.19	26.31	178	0.50	
573	5.32	33.97	2.84	2.39	26.84	300	9.75	34.15	26.35	174	0.59	
766	4.12	34.14	1.31	2.98	27.11	400	8.00	34.05	26.55	156	0.76	
955	3.46	34.30	0.66	3.20	27.31	500	6.09	33.94	26.73	139	0.91	
						600	5.10	33.99	26.89	124	1.04	
						700	4.43	34.07	27.02	111	1.15	
						800	4.00	34.17	27.15	99	1.26	

HBL

HMS-25

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
16	HUGH M. SMITH; January 25, 1954; 2004, 2032 GCT; 39°26'N, 161°27'W; sounding, 2900 fm; wind, 130°, 3 kt; weather, cloudy; sea, moderate; wire angle, 20°, 10°.										
0	12.14	34.09	6.08	0.58	25.88	0	12.14	34.09	25.88	213	0.00
9	12.11	34.09	6.06	0.58	25.88	10	12.11	34.09	25.88	213	0.02
23	12.13	34.09	6.08	0.53	25.88	20	12.12	34.09	25.88	214	0.04
49	12.12	34.09	6.08	0.54	25.88	30	12.13	34.09	25.88	214	0.06
99	11.88	34.14	5.87	0.66	25.96	50	12.12	34.09	25.88	214	0.11
145	11.23	34.18	-	0.85	26.12	75	12.04	34.11	25.91	212	0.16
200	10.45	34.14	5.52	0.98	26.22	100	11.87	34.14	25.97	207	0.21
299	9.14	34.05	5.21	1.26	26.37	125	11.54	34.17	26.05	200	0.26
403	7.78	34.00	4.57	1.62	26.54	150	11.16	34.18	26.13	193	0.31
						200	10.45	34.14	26.22	185	0.41
538	5.36	33.93	2.99	2.34	26.81	250	9.78	34.09	26.30	178	0.50
644	4.59	34.06	2.56	2.68	27.00	300	9.13	34.05	26.37	172	0.58
850	3.71	34.21	0.85	3.02	27.21	400	7.82	34.00	26.54	157	0.75
1055	3.19	34.33	0.57	3.17	27.36	500	6.00	33.94	26.74	138	0.90
						600	4.84	34.00	26.92	120	1.03
						700	4.29	34.11	27.07	106	1.14
						800	3.87	34.18	27.17	97	1.24
						1000	3.33	34.30	27.32	84	1.42
17	HUGH M. SMITH; January 26, 1954; 0720 GCT; 39°59'N, 160°03'W; sounding, 3000 fm; wind, 300°, 4 kt; weather, slight rain; sea, moderate; wire angle, 25°.										
0	12.10	33.99	5.95	0.56	25.81	0	12.10	33.99	25.81	220	0.00
8	12.08	34.05	6.05	0.52	25.86	10	12.08	34.06	25.86	215	0.02
20	12.08	34.06	6.01	0.50	25.86	20	12.08	34.06	25.86	215	0.04
38	12.10	34.06	6.08	0.53	25.86	30	12.09	34.06	25.86	215	0.06
80	12.07	34.07	5.99	0.57	25.87	50	12.10	34.06	25.86	216	0.11
101	12.05	34.06	5.96	0.52	25.87	75	12.08	34.07	25.87	216	0.16
161	10.77	34.17	5.42	0.92	26.19	100	12.05	34.06	25.87	216	0.22
250	9.98	34.14	5.34	1.07	26.30	125	11.61	34.14	26.01	203	0.27
340	8.77	34.06	- a)	1.39	26.44	150	11.00	34.17	26.15	191	0.32
429	7.08	33.96	4.12	1.85	26.61	200	10.37	34.17	26.26	181	0.41
525	5.62	33.93	3.22	2.25	26.78	250	9.98	34.14	26.30	178	0.50
713	4.30	34.08	1.51	2.80	27.05	300	9.36	34.10	26.38	172	0.59
902	3.66	34.22	0.94	3.06	27.22	400	7.64	33.99	26.55	155	0.75
						500	5.96	33.93	26.73	138	0.90
						600	4.93	33.97	26.89	123	1.03
						700	4.35	34.06	27.02	111	1.15
						800	4.01	34.14	27.12	102	1.25
18	HUGH M. SMITH; January 26, 1954; 1902 GCT; 38°27'N, 160°10'W; sounding, 3000 fm; wind, 330°, 18 kt; weather, cloudy; sea, rough; wire angle, 23°.										
0	12.17	34.04	6.07	0.55	25.83	0	12.17	34.04	25.83	218	0.00
8	12.17	34.03	6.09	0.52	25.82	10	12.17	34.03	25.82	219	0.02
22	12.18	34.03	6.04	0.49	25.82	20	12.18	34.03	25.82	219	0.04
48	12.16	34.03	6.05	0.49	25.83	30	12.18	34.03	25.82	219	0.07
95	12.00	34.05	5.93	0.56	25.87	50	12.17	34.03	25.82	220	0.11
139	10.86	34.17	5.54	0.84	26.17	75	12.05	34.03	25.85	218	0.16
192	10.32	34.17	5.42	0.97	26.27	100	11.88	34.06	25.90	213	0.22
288	9.18	34.08	5.28	1.17	26.39	125	11.24	34.13	26.07	197	0.27
391	7.80	34.02	4.39	1.59	26.56	150	10.71	34.18	26.21	185	0.32
488	6.28	33.96	3.61	1.99	26.72	200	10.23	34.16	26.28	179	0.41
586	5.16	33.98	2.70	2.37	26.87	250	9.65	34.12	26.34	174	0.50
782	4.00	34.15	1.13	2.88	27.13	300	9.03	34.07	26.41	169	0.58
980	3.36	34.28	0.63	3.08	27.30	400	7.65	34.01	26.57	154	0.74
						500	6.12	33.96	26.74	138	0.89
						600	5.04	33.99	26.89	123	1.02
						700	4.37	34.07	27.03	110	1.14
						800	3.94	34.16	27.15	100	1.24

a) One oxygen sample missing; the station curve indicates that the sample from the 340-meter level is the most probable one.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; January 27, 1954; 0522 GCT; 37°07'N, 160°05'W; sounding, 3000 fm; wind, 270°, 7 kt; weather, cloudy; sea, moderate; wire angle, 12°. 19

0	13.33	34.17	5.96	0.36	25.70	0	13.33	34.17	25.70	230	0.00
9	13.32	34.16	5.97	0.39	25.70	10	13.32	34.16	25.70	231	0.02
24	13.34	34.16	6.03	0.37	25.69	20	13.33	34.16	25.70	231	0.05
46	13.36	34.16	5.92	0.37	25.69	30	13.35	34.16	25.69	232	0.07
73	13.33	34.16	5.97	0.38	25.70	50	13.36	34.16	25.69	232	0.12
101	13.29	34.18	5.90	0.43	25.72	75	13.33	34.16	25.70	232	0.17
188	11.66	34.26	5.35	0.85	26.10	100	13.29	34.18	25.72	231	0.23
280	10.32	34.17	5.18	1.08	26.27	125	12.70	34.24	25.88	216	0.29
376	8.83	34.09	4.73	1.43	26.45	150	12.22	34.27	26.00	205	0.34
468	7.06	33.99	4.00	1.85	26.64	200	11.48	34.25	26.12	194	0.44
565	5.61	33.94	3.08	2.32	26.79	250	10.74	34.21	26.23	186	0.54
756	4.20	34.12	1.38	2.88	27.09	300	10.03	34.15	26.30	179	0.63
945	3.53	34.26	0.76	3.08	27.27	400	8.37	34.06	26.50	161	0.80
						500	6.53	33.96	26.68	144	0.95
						600	5.25	33.96	26.84	128	1.08
						700	4.48	34.05	27.00	113	1.20
						800	4.04	34.15	27.13	101	1.31

HUGH M. SMITH; January 27, 1954; 1627 GCT; 35°43'N, 160°00'W; sounding, 3000 fm; wind, 210°, 12 kt; weather, intermittent moderate drizzle; sea, slight; wire angle, 25°. 20

0	13.76	34.19	5.92	0.40	25.63	0	13.76	34.19	25.63	237	0.00
8	13.76	34.20	5.90	0.40	25.64	10	13.76	34.20	25.64	236	0.02
22	13.78	34.22	5.95	0.39	25.65	20	13.78	34.22	25.65	235	0.05
48	13.80	34.21	5.90	0.40	25.64	30	13.79	34.22	25.65	236	0.07
96	13.74	34.22	5.80	0.41	25.66	50	13.80	34.21	25.64	237	0.12
122	13.04	34.31	5.43	0.71	25.87	75	13.78	34.20	25.63	238	0.18
193	10.96	34.15	5.44	0.97	26.14	100	13.65	34.24	25.69	234	0.24
290	10.28	34.14	5.39	1.14	26.25	125	12.94	34.31	25.89	215	0.29
393	8.61	34.06	4.61	1.56	26.46	150	11.80	34.21	26.03	202	0.34
491	6.76	33.95	3.98	2.03	26.65	200	10.88	34.15	26.16	191	0.44
589	5.29	34.00	- r	2.57	26.87	250	10.46	34.13	26.21	187	0.54
785	3.98	34.17	1.05	3.11	27.15	300	10.15	34.14	26.28	182	0.63
986	3.37	34.29	0.50	3.36	27.31	400	8.48	34.05	26.48	163	0.80
						500	6.61	33.95	26.67	145	0.96
						600	5.18	34.01	26.89	124	1.09
						700	4.37	34.09	27.05	109	1.21
						800	3.93	34.18	27.16	98	1.31

HUGH M. SMITH; January 28, 1954; 0552 GCT; 34°04'N, 159°49'W; sounding, 3200 fm; wind, 180°, 17 kt; weather, moderate rain; sea, slight; wire angle, 28°. 21

0	16.09	34.31	5.50	0.17	25.22	0	16.09	34.31	25.22	276	0.00
8	16.08	34.35	5.50	0.23	25.25	10	16.08	34.36	25.26	273	0.03
20	16.06	34.40	5.52	0.19	25.29	20	16.06	34.40	25.29	270	0.05
40	16.01	34.42	5.57	0.20	25.32	30	16.04	34.42	25.31	268	0.08
64	15.96	34.41	5.55	0.16	25.32	50	15.99	34.42	25.32	267	0.13
89	15.96	34.41	5.55	0.16	25.32	75	15.96	34.41	25.32	268	0.20
166	12.80	34.25	5.28	0.72	25.87	100	15.59	34.39	25.39	262	0.27
248	11.72	34.28	4.98	1.01	26.10	125	13.55	34.24	25.71	232	0.33
333	10.60	34.22	4.89	1.18	26.26	150	13.00	34.24	25.82	222	0.39
418	8.96	34.10	4.52	1.47	26.44	200	12.40	34.27	25.97	210	0.49
506	7.06	33.98	3.97	1.91	26.63	250	11.70	34.28	26.11	197	0.60
687	4.73	34.04	1.95	2.72	26.97	300	11.07	34.25	26.20	189	0.69
870	3.76	34.21	0.71	3.13	27.20	400	9.34	34.13	26.40	171	0.87
						500	7.18	33.99	26.62	150	1.03
						600	5.63	33.98	26.81	131	1.18
						700	4.66	34.05	26.98	115	1.30
						800	4.13	34.14	27.11	103	1.41

HBL

HMS-25

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
22	HUGH M. SMITH; January 28, 1954; 1855 GCT; 32°50'N, 160°08'W; sounding, 3300 fm; wind, 270°, 14 kt; weather, intermittent slight rain; sea, moderate; wire angle, 19°.										
0	16.20	34.43	5.49	0.15	25.28	0	16.20	34.43	25.28	270	0.00
9	16.20	34.43	5.50	0.18	25.28	10	16.20	34.43	25.28	270	0.03
23	16.23	34.45	5.72	0.12	25.29	20	16.22	34.44	25.29	270	0.05
49	16.20	34.48	5.47	0.11	25.32	30	16.22	34.46	25.30	269	0.08
89	15.15	34.44	5.13	0.30	25.53	50	16.20	34.48	25.32	268	0.13
134	13.90	34.42	4.89	0.54	25.78	75	15.59	34.46	25.44	257	0.20
196	12.53	34.34	5.00	0.74	25.99	100	14.84	34.44	25.59	243	0.26
295	11.06	34.21	5.03	0.91	26.17	125	14.14	34.42	25.73	231	0.32
398	9.42	34.14	4.59	1.30	26.40	150	13.51	34.40	25.84	220	0.38
497	7.48	34.00	4.09	1.69	26.59	200	12.46	34.33	26.00	207	0.48
597	5.78	33.97	3.09	2.14	26.79	250	11.68	34.26	26.09	199	0.59
794	4.12	34.14	1.12	2.89	27.11	300	10.99	34.21	26.18	191	0.68
996	3.50	34.32	0.75	-	27.32	400	9.38	34.14	26.40	171	0.86
						500	7.42	34.00	26.59	153	1.03
						600	5.74	33.97	26.79	134	1.17
						700	4.71	34.04	26.97	117	1.30
						800	4.10	34.14	27.11	103	1.40
23	HUGH M. SMITH; January 29, 1954; 0902 GCT; 31°09'N, 159°58'W; sounding, 3000 fm; wind, 180°, 32 kt; weather, partly cloudy; sea, rough; wire angle, 45°.										
0	18.47	34.93	5.26	0.11	25.12	0	18.47	34.93	25.12	285	0.00
8	18.46	34.92	5.26	0.13	25.12	10	18.46	34.92	25.12	286	0.03
16	18.46	34.92	5.26	0.06	25.12	20	18.47	34.92	25.11	287	0.06
36	18.50	34.92	5.32	0.08	25.11	30	18.49	34.92	25.11	287	0.09
66	18.46	34.94	5.34	0.09	25.13	50	18.49	34.93	25.12	287	0.14
92	18.40	34.91	5.27	0.06	25.12	75	18.45	34.94	25.13	287	0.22
144	14.95	34.42	5.08	0.46	25.55	100	18.36	34.90	25.12	288	0.29
219	13.10	34.31	5.01	0.69	25.86	125	16.37	34.61	25.38	264	0.36
296	11.38	34.23	5.00	0.98	26.13	150	14.73	34.40	25.59	245	0.42
371	10.18	34.17	4.81	1.19	26.29	200	13.39	34.30	25.79	227	0.54
451	8.42	34.06	4.44	1.52	26.49	250	12.37	34.28	25.98	210	0.65
610	5.94	33.98	3.09	2.32	26.78	300	11.32	34.23	26.14	195	0.75
787	4.19	34.13	1.05	3.00	27.10	400	9.55	34.13	26.37	175	0.93
						500	7.54	34.02	26.59	153	1.10
						600	6.06	33.98	26.76	137	1.24
						700	5.05	34.06	26.95	119	1.37
24	HUGH M. SMITH; January 29, 1954; 2207 GCT; 29°36'N, 160°02'W; sounding, 3200 fm; wind, 300°, 22 kt; weather, cloudy; sea, moderate; wire angle, 24°.										
0	19.72	35.25	5.28	0.13	25.04	0	19.72	35.25	25.04	292	0.00
8	19.73	35.23	5.29	0.08	25.03	10	19.73	35.23	25.03	294	0.03
21	19.74	35.25	5.28	0.06	25.04	20	19.74	35.25	25.04	294	0.06
46	19.68	35.23	5.29	0.03	25.04	30	19.73	35.25	25.04	294	0.09
84	19.54	35.19	5.29	0.05	25.05	50	19.67	35.22	25.03	295	0.15
117	19.45	35.18	5.32	0.09	25.06	75	19.57	35.20	25.05	295	0.22
183	16.84	34.68	4.90	0.30	25.33	100	19.55	35.19	25.04	296	0.29
274	13.46	34.35	4.82	0.67	25.82	125	19.22	35.13	25.08	293	0.37
367	10.44	34.14	4.67	1.20	26.23	150	18.00	34.87	25.19	283	0.44
458	8.60	34.05	4.42	1.59	26.46	200	16.18	34.60	25.42	263	0.58
548	7.00	34.01	3.36	2.12	26.66	250	14.32	34.41	25.68	239	0.70
730	4.78	34.06	1.56	2.91	26.98	300	12.54	34.28	25.95	214	0.82
923	3.92	34.24	0.57	3.18	27.21	400	9.70	34.10	26.32	179	1.01
						500	7.82	34.03	26.56	157	1.18
						600	6.23	34.01	26.76	137	1.33
						700	5.05	34.04	26.93	121	1.46
						800	4.47	34.12	27.06	109	1.57

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; January 30, 1954; 1045 GCT; 27°56'N, 159°56'W; sounding, 2700 fm; wind, 130°, 11 kt; weather, cloudy; sea, slight; wire angle, 05°. 25

0	20.64	35.36	5.04	0.10	24.88	0	20.64	35.36	24.88	308	0.00
9	20.62	35.37	5.04	0.07	24.90	10	20.62	35.37	24.90	307	0.03
24	20.63	35.37	5.02	0.04	24.89	20	20.62	35.37	24.90	307	0.06
48	20.66	35.37	4.98	0.06	24.89	30	20.64	35.37	24.89	308	0.09
96	20.64	35.36	4.99	0.04	24.88	50	20.66	35.37	24.89	309	0.15
124	20.18	35.25	5.03	0.06	24.92	75	20.65	35.38	24.90	309	0.23
197	15.49	34.48	4.86	0.35	25.48	100	20.61	35.35	24.88	311	0.31
293	12.28	34.23	4.79	0.84	25.96	125	20.13	35.24	24.93	308	0.39
392	9.79	34.10	4.62	1.27	26.31	150	18.80	34.99	25.08	294	0.46
487	7.48	33.99	3.81	1.86	26.58	200	15.36	34.46	25.50	255	0.60
588	5.84	34.03	2.03	2.62	26.83	250	13.46	34.28	25.76	231	0.72
783	4.38	34.21	0.63	3.19	27.14	300	12.09	34.22	25.99	210	0.83
973	3.80	34.37	0.50	3.22	27.33	400	9.58	34.09	26.33	178	1.02
						500	7.23	33.99	26.61	151	1.19
						600	5.71	34.04	26.85	128	1.33
						700	4.81	34.13	27.03	111	1.45
						800	4.33	34.22	27.15	100	1.55

HUGH M. SMITH; January 30, 1954; 2140 GCT; 26°30'N, 160°01'W; sounding, 2500 fm; wind, 180°, 16 kt; weather, partly cloudy; sea, slight; wire angle, 27°. 26

0	21.68	35.45	5.17	0.08	24.67	0	21.68	35.45	24.67	328	0.00
8	21.66	35.45	5.11	0.04	24.67	10	21.65	35.45	24.68	328	0.03
22	21.62	35.44	5.11	0.09	24.68	20	21.63	35.44	24.67	328	0.07
45	21.58	35.44	5.11	0.08	24.69	30	21.61	35.44	24.68	328	0.10
89	21.18	35.45	5.13	0.04	24.81	50	21.54	35.44	24.70	327	0.16
133	20.92	35.42	5.12	0.04	24.85	75	21.32	35.45	24.77	322	0.25
176	18.64	34.95	4.95	0.16	25.09	100	21.17	35.47	24.82	317	0.32
264	13.05	34.30	4.86	0.76	25.86	125	21.04	35.44	24.84	317	0.40
355	10.54	34.15	4.79	1.21	26.22	150	20.80	35.41	24.88	314	0.48
445	8.66	34.05	4.38	1.64	26.45	200	17.02	34.73	25.32	272	0.63
536	6.89	34.00	3.30	2.25	26.67	250	13.88	34.37	25.74	233	0.76
718	4.68	34.12	1.22	3.22	27.04	300	11.82	34.21	26.03	206	0.87
909	3.83	34.33	0.74	3.37	27.29	400	9.55	34.09	26.34	177	1.06
						500	7.56	34.01	26.58	154	1.22
						600	5.93	34.02	26.81	132	1.37
						700	4.83	34.10	27.00	114	1.49
						800	4.32	34.21	27.15	100	1.60

HUGH M. SMITH; January 31, 1954; 0822, 0846 GCT; 25°07'N, 159°55'W; sounding, 2600 fm; wind, 190°, 19 kt; weather, cloudy; sea, moderate; wire angle, 09°, 10°. 27

0	22.40	35.39	4.92	0.21	24.42	0	22.40	35.39	24.42	352	0.00
9	22.40	35.39	4.92	0.11	24.42	10	22.40	35.39	24.42	352	0.04
24	22.42	35.40	4.88	0.06	24.42	20	22.42	35.40	24.42	352	0.07
47	22.34	35.42	4.90	0.03	24.46	30	22.41	35.40	24.43	353	0.11
93	21.84	35.47	4.93	0.06	24.64	50	22.32	35.43	24.47	349	0.18
140	20.64	35.29	4.89	0.09	24.83	75	22.00	35.46	24.59	339	0.26
191	17.38	34.80	4.72	0.35	25.29	100	21.74	35.46	24.66	333	0.35
285	12.94	34.34	4.76	0.83	25.91	125	21.60	35.45	24.69	331	0.43
384	10.35	34.17	4.65	1.24	26.26	150	20.06	35.20	24.92	310	0.51
						200	16.87	34.74	25.36	268	0.65
479	8.42	34.06	4.08	1.73	26.49	250	14.36	34.46	25.71	236	0.78
579	6.56	34.04	2.60	2.49	26.74	300	12.46	34.30	25.98	211	0.89
771	4.60	34.20	0.98	3.12	27.11	400	10.00	34.15	26.31	181	1.09
962	3.86	34.38	1.02	3.23	27.33	500	8.00	34.05	26.55	158	1.26
						600	6.26	34.05	26.79	135	1.40
						700	5.13	34.12	26.98	116	1.53
						800	4.49	34.23	27.14	101	1.64

HBL

HMS-25

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
28	HUGH M. SMITH; January 31, 1954; 2207 GCT; 23°39'N, 159°48'W; sounding, 2600 fm; wind, 190°, 26 kt; weather, partly cloudy; sea, rough; wire angle, 36°.										
0	22.99	35.31	5.07	0.17	24.19	0	22.99	35.31	24.19	374	0.00
8	22.98	35.29	5.02	0.20	24.18	10	22.98	35.29	24.18	375	0.04
19	22.98	35.31	5.04	0.09	24.19	20	22.98	35.31	24.19	374	0.07
41	22.97	35.30	5.02	0.13	24.19	30	22.98	35.31	24.19	375	0.11
84	22.91	35.32	4.98	0.12	24.22	50	22.96	35.30	24.19	375	0.19
113	22.09	35.31	4.89	0.10	24.45	75	22.93	35.32	24.22	374	0.28
164	20.10	35.20	4.70	0.19	24.91	100	22.51	35.32	24.34	364	0.37
245	16.29	34.68	4.65	0.46	25.45	125	21.30	35.30	24.66	334	0.46
331	12.28	34.28	4.72	0.95	26.00	150	20.60	35.24	24.80	321	0.54
414	9.43	34.12	4.39	1.49	26.38	200	18.45	34.99	25.17	287	0.69
501	7.66	34.07	3.20	2.23	26.61	250	16.04	34.65	25.49	258	0.83
675	5.57	34.29	1.01	3.16	27.07	300	13.66	34.40	25.81	227	0.95
864	4.78	34.42	1.12	3.09	27.26	400	9.84	34.14	26.33	179	1.15
						500	7.68	34.07	26.61	152	1.32
						600	6.27	34.18	26.89	125	1.46
						700	5.47	34.31	27.09	106	1.57
						800	5.05	34.38	27.20	97	1.68
29	HUGH M. SMITH; February 1, 1954; 1435 GCT; 22°02'N, 158°41'W; sounding, 1800 fm; wind, 190°, 19 kt; weather, partly cloudy; sea, moderate; wire angle, 30°.										
0	23.74	35.25	4.89	0.11	23.93	0	23.74	35.25	23.93	399	0.00
8	23.74	35.25	4.88	0.09	23.93	10	23.75	35.25	23.93	400	0.04
20	23.76	35.25	4.87	0.08	23.92	20	23.76	35.25	23.92	400	0.08
41	23.43	35.26	4.94	0.06	24.03	30	23.62	35.25	23.97	396	0.12
80	23.16	35.26	4.83	0.08	24.10	50	23.41	35.27	24.04	390	0.20
117	21.70	35.16	4.73	0.09	24.44	75	23.22	35.26	24.09	386	0.30
159	20.26	35.16	4.65	0.17	24.83	100	22.43	35.21	24.27	370	0.39
236	16.30	34.66	4.38	0.52	25.44	125	21.44	35.16	24.52	347	0.48
397	8.88	34.13	3.23	1.97	26.48	150	20.58	35.16	24.75	326	0.56
480	6.82	34.14	1.87	2.64	26.79	200	18.24	34.92	25.17	287	0.72
654	5.33	34.33	0.91	3.19	27.13	250	15.54	34.59	25.55	252	0.85
836	4.42	34.47	1.04	3.19	27.34	300	13.01	34.36	25.92	217	0.97
						400	8.79	34.13	26.49	162	1.16
						500	6.54	34.16	26.84	129	1.30
						600	5.56	34.26	27.05	110	1.42
						700	5.10	34.36	27.18	97	1.53
						800	4.60	34.44	27.30	86	1.62
30	HUGH M. SMITH; February 9, 1954; 1425 GCT; 22°01'N, 157°00'W; sounding, 2500 fm; wind, 310°, 7 kt; weather, missing; sea, slight; wire angle, 17°.										
0	23.10	35.43	5.06	0.20	24.25	0	23.10	35.43	24.25	368	0.00
9	23.12	35.26	4.92	0.32	24.12	10	23.12	35.26	24.12	381	0.04
50	22.94	35.52	4.95	0.16	24.36	20	23.09	35.25	24.12	382	0.08
100	22.88	35.70	4.92	0.09	24.52	30	23.05	35.29	24.16	378	0.11
159	20.84	35.14	4.65	0.14	24.66	50	22.94	35.52	24.36	359	0.19
201	19.62	35.03	4.67	0.12	24.90	75	22.94	35.66	24.47	350	0.28
300	13.02	34.31	4.61	0.89	25.87	100	22.88	35.70	24.52	346	0.36
405	8.95	34.09	3.39	1.56	26.43	125	22.75	35.48	24.39	360	0.45
506	6.79	34.02	2.57	1.99	26.70	150	21.21	35.24	24.64	337	0.54
609	5.72	34.20	1.00	2.64	26.98	200	19.65	35.03	24.90	314	0.70
806	4.68	34.41	0.91	2.88	27.27	250	16.51	34.68	25.40	266	0.85
1007	3.96	34.51	1.20	2.80	27.42	300	13.02	34.31	25.87	221	0.97
1200	3.56	34.54	1.35	2.65	27.49	400	9.09	34.09	26.41	170	1.16
						500	6.88	34.02	26.69	144	1.32
						600	5.78	34.18	26.95	119	1.45
						700	5.14	34.32	27.14	101	1.56
						800	4.70	34.41	27.26	90	1.66
						1000	3.98	34.51	27.42	76	1.82
						1200	3.56	34.54	27.49	70	1.97

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED			
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD	31
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m	
HUGH M. SMITH; February 10, 1954; 0852 GCT; 23°33'N, 154°56'W; sounding, 2300 fm; wind, 240°, 14 kt; weather, partly cloudy; sea, moderate; wire angle, 18°.												
0	22.77	35.23			24.19	0	22.77	35.23	24.19	373	0.00	
8	22.79	35.26			24.21	10	22.79	35.26	24.21	372	0.04	
45	22.82	35.21			24.16	20	22.81	35.25	24.20	374	0.07	
99	22.82	35.35			24.27	30	22.82	35.24	24.19	375	0.11	
185	20.02	35.08			24.84	50	22.82	35.22	24.17	377	0.19	
275	16.62	34.78			25.45	75	22.82	35.29	24.23	373	0.28	
369	11.36	34.20			26.11	100	22.80	35.35	24.28	369	0.37	
461	8.32	34.05			26.50	125	22.60	35.30	24.30	368	0.47	
557	6.34	34.07			26.80	150	21.39	35.23	24.58	342	0.56	
743	5.14	34.29			27.12	200	19.53	35.04	24.93	310	0.72	
926	4.34	34.43			27.32	250	17.67	34.88	25.28	278	0.87	
						300	15.20	34.62	25.65	243	1.00	
						400	10.16	34.12	26.26	185	1.21	
						500	7.39	34.04	26.63	150	1.38	
						600	5.89	34.11	26.89	125	1.51	
						700	5.25	34.23	27.06	109	1.63	
						800	4.89	34.33	27.18	98	1.74	
HUGH M. SMITH; February 10, 1954; 2045 GCT; 24°59'N, 155°05'W; sounding, 2500 fm; wind, 240°, 19 kt; weather, intermittent slight drizzle; sea, rough; wire angle, 16°.												32
0	22.47	35.03			24.13	0	22.47	35.03	24.13	380	0.00	
8	22.48	35.39			24.40	10	22.49	35.43	24.43	352	0.04	
51	22.50	35.41			24.41	20	22.50	35.40	24.40	355	0.07	
92	21.90	35.30			24.49	30	22.50	35.40	24.40	355	0.11	
205	16.14	34.56			25.40	50	22.50	35.41	24.41	355	0.18	
308	11.49	34.25			26.12	75	22.23	35.36	24.45	352	0.27	
415	8.54	34.13			26.53	100	21.58	35.25	24.54	344	0.35	
519	6.64	34.07			26.76	125	20.49	35.10	24.73	327	0.44	
623	5.38	34.13			26.96	150	19.28	34.93	24.91	310	0.52	
823	4.22	34.38			27.29	200	16.45	34.60	25.36	269	0.66	
1027	3.69	34.56			27.49	250	13.96	34.39	25.74	233	0.79	
1220	3.24	34.49			27.48	300	11.81	34.26	26.07	202	0.90	
						400	8.87	34.14	26.49	163	1.08	
						500	6.93	34.07	26.72	141	1.23	
						600	5.61	34.11	26.92	122	1.36	
						700	4.80	34.22	27.10	104	1.47	
						800	4.29	34.35	27.26	90	1.57	
						1000	3.74	34.55	27.48	70	1.73	
						1200	3.29	34.50	27.48	70	1.87	
HUGH M. SMITH; February 11, 1954; 0925 GCT; 26°28'N, 155°04'W; sounding, 3000 fm; wind, 270°, 24 kt; weather, missing; sea, rough; wire angle, 36°.												33
0	20.99	35.37			24.80	0	20.99	35.37	24.80	316	0.00	
8	20.99	35.39			24.81	10	20.99	35.39	24.81	315	0.03	
18	21.01	35.37			24.79	20	21.01	35.37	24.79	317	0.06	
41	21.00	35.41			24.83	30	21.01	35.38	24.80	317	0.09	
87	20.98	35.41			24.83	50	20.99	35.41	24.83	315	0.16	
107	20.99	35.41			24.83	75	20.98	35.42	24.84	315	0.24	
158	18.13	34.94			25.21	100	20.99	35.42	24.84	316	0.32	
236	13.98	34.51			25.83	125	20.21	35.27	24.93	308	0.39	
321	11.34	34.23			26.13	150	18.71	35.03	25.14	289	0.47	
403	9.90	34.18			26.35	200	15.78	34.68	25.57	248	0.60	
487	8.10	34.11			26.58	250	13.44	34.45	25.90	218	0.72	
658	5.32	34.11			26.95	300	11.85	34.28	26.08	201	0.82	
840	4.14	34.29			27.23	400	9.95	34.18	26.34	177	1.01	
						500	7.84	34.10	26.61	152	1.18	
						600	6.11	34.09	26.84	130	1.32	
						700	5.05	34.15	27.02	113	1.44	
						800	4.40	34.25	27.17	98	1.55	

HBL

HMS-25

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
34	HUGH M. SMITH; February 11, 1954; 2239, 2307 GCT; 27°59'N, 155°05'W; sounding, 3000 fm; wind, 320°, 15 kt; weather, partly cloudy; sea, high; wire angle, 10°, 25°.										
0	20.40	35.37	5.27		24.96	0	20.40	35.37	24.96	301	0.00
9	20.40	35.35	5.23		24.94	10	20.40	35.35	24.94	303	0.03
23	20.40	35.39	5.27		24.97	20	20.40	35.38	24.96	301	0.06
51	20.40	35.37	5.29		24.96	30	20.40	35.39	24.97	300	0.09
102	20.41	35.37	5.28		24.95	50	20.40	35.37	24.96	303	0.15
175	18.98	35.03	5.06		25.07	75	20.41	35.38	24.96	303	0.23
203	16.94	34.69	4.93		25.31	100	20.41	35.37	24.95	305	0.30
304	12.38	34.27	4.34		25.97	125	20.35	35.33	24.94	307	0.38
						150	19.88	35.21	24.97	305	0.46
500	7.82	34.05	- r		26.58	200	17.17	34.73	25.29	276	0.60
601	6.01	34.00	- r		26.78	250	14.45	34.40	25.65	242	0.73
800	4.40	34.23	- r		27.15	300	12.50	34.27	25.95	214	0.84
1002	3.79	34.51a)	- r		27.44	400	9.71	34.10	26.32	179	1.04
						500	7.82	34.05	26.58	155	1.21
						600	6.03	34.00	26.78	135	1.35
						700	4.98	34.08	26.97	117	1.48
						800	4.40	34.23	27.15	100	1.59
						1000	3.80	34.51	27.44	74	1.76
35	HUGH M. SMITH; February 12, 1954; 1335 GCT; 29°34'N, 155°05'W; sounding, 3100 fm; wind, 270°, 12 kt; weather, cloudy; sea, very rough; wire angle, 15°.										
0	18.46	34.90	5.14		25.10	0	18.46	34.90	25.10	287	0.00
9	18.46	34.88	5.10		25.08	10	18.46	34.88	25.08	289	0.03
23	18.50	34.94	5.14		25.12	20	18.49	34.92	25.11	287	0.06
46	18.51	34.90	5.16		25.09	30	18.51	34.94	25.12	286	0.09
92	18.48	34.90	5.15		25.10	50	18.51	34.90	25.09	290	0.14
115	18.49	34.92	5.18		25.11	75	18.49	34.89	25.08	291	0.22
188	13.41	34.34	4.97		25.82	100	18.48	34.91	25.10	290	0.29
282	11.30	34.19	4.61		26.11	125	17.93	34.86	25.20	282	0.36
380	9.88	34.18	4.75		26.35	150	15.35	34.56	25.57	246	0.43
473	7.64	34.04	4.11		26.59	200	12.98	34.30	25.87	219	0.54
571	5.94	34.02	2.91		26.81	250	11.70	34.20	26.04	203	0.65
761	4.54	34.22	0.77		27.13	300	11.05	34.19	26.16	194	0.75
950	3.76	34.34	0.83		27.31	400	9.41	34.15	26.41	171	0.93
						500	7.10	34.02	26.65	147	1.09
						600	5.63	34.04	26.86	127	1.23
						700	4.82	34.14	27.04	111	1.34
						800	4.38	34.24	27.16	99	1.45
36	HUGH M. SMITH; February 13, 1954; 0232 GCT; 31°08'N, 154°59'W; sounding, 2800 fm; wind, 320°, 14 kt; weather, partly cloudy; sea, rough; wire angle, 20°.										
0	18.72	34.99	5.28		25.10	0	18.72	34.99	25.10	287	0.00
10	18.74	35.03	5.27		25.13	10	18.74	35.03	25.13	285	0.03
50	18.71	34.99	5.23		25.11	20	18.74	35.03	25.13	285	0.06
99	18.61	34.97	5.23		25.12	30	18.74	35.03	25.13	285	0.09
124	18.52	34.96	5.22		25.13	50	18.71	34.99	25.11	288	0.14
194	13.58	34.36	4.70		25.80	75	18.67	34.98	25.11	289	0.22
292	11.59	34.25	4.90		26.10	100	18.62	34.97	25.11	289	0.29
394	9.62	34.14	4.72		26.36	125	18.46	34.95	25.14	288	0.36
492	7.85	34.07	4.30		26.59	150	16.20	34.65	25.45	258	0.43
592	6.17	34.02	3.04		26.78	200	13.37	34.34	25.83	223	0.55
788	4.25	34.16	0.97		27.11	250	11.88	34.24	26.04	204	0.65
989	3.71	34.36	0.44		27.33	300	11.43	34.24	26.13	197	0.75
1183	3.28	34.49	0.78		27.47	400	9.51	34.14	26.38	173	0.94
						500	7.70	34.06	26.60	153	1.10
						600	6.06	34.02	26.79	134	1.25
						700	4.91	34.07	26.97	117	1.37
						800	4.20	34.17	27.13	102	1.48
						1000	3.69	34.37	27.34	83	1.67

a) One titration only was made because sample insufficient.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; February 13, 1954; 1417 GCT; 32°32'N, 154°59'W; sounding, 2800 fm; wind, 360°, 7 kt; weather, partly cloudy; sea, moderate; wire angle, 00°. 37

0	17.52	34.72	5.36		25.19	0	17.52	34.72	25.19	278	0.00
9	17.56	34.74	5.27		25.20	10	17.56	34.74	25.20	278	0.03
48	17.60	34.74	5.30		25.19	20	17.58	34.75	25.20	278	0.06
120	17.60	34.72	5.32		25.17	30	17.60	34.75	25.20	279	0.08
198	13.34	34.25	5.07		25.76	50	17.60	34.74	25.19	280	0.14
293	11.56	34.23	4.92		26.09	75	17.60	34.76	25.20	280	0.21
394	9.64	34.14	4.68		26.36	100	17.60	34.75	25.20	281	0.28
489	7.64	34.00	4.29		26.56	125	17.36	34.69	25.21	281	0.35
590	5.76	33.96	2.94		26.78	150	15.10	34.42	25.52	251	0.42
787	4.13	34.14	0.92		27.11	200	13.28	34.25	25.78	228	0.54
978	3.57	34.31	0.46		27.30	250	12.14	34.24	25.99	208	0.65
						300	11.43	34.23	26.12	197	0.75
						400	9.51	34.13	26.38	174	0.93
						500	7.41	33.99	26.59	154	1.10
						600	5.63	33.96	26.80	133	1.24
						700	4.62	34.04	26.98	116	1.36
						800	4.09	34.15	27.12	102	1.47

HUGH M. SMITH; February 14, 1954; 0236 GCT; 34°02'N, 155°00'W; sounding, 3300 fm; wind, 120°, 15 kt; weather, cloudy; sea, moderate; wire angle, 05°. 38

0	15.78	34.22	5.71		25.22	0	15.78	34.22	25.22	276	0.00
9	15.80	34.25	5.63		25.24	10	15.80	34.25	25.24	275	0.03
48	15.72	34.18	5.64		25.20	20	15.81	34.24	25.23	276	0.06
110	14.96	34.16	5.62		25.35	30	15.79	34.23	25.22	276	0.08
145	12.68	34.20	5.25		25.86	50	15.73	34.18	25.20	279	0.14
197	12.14	34.27	5.01		26.02	75	15.69	34.16	25.19	281	0.21
293	10.60	34.18	5.01		26.23	100	15.50	34.16	25.23	277	0.28
393	8.90	34.09	4.63		26.44	125	13.30	34.18	25.72	232	0.34
490	7.26	34.02	4.12		26.63	150	12.56	34.21	25.89	216	0.40
589	5.59	34.14a)	3.03		26.95	200	12.10	34.27	26.02	204	0.50
785	4.16	34.16	1.14		27.12	250	11.20	34.24	26.17	191	0.60
974	3.48	34.31	0.47		27.31	300	10.48	34.17	26.24	185	0.70
1168	3.10	34.43	0.41		27.44	400	8.78	34.08	26.45	166	0.87
						500	7.08	34.03	26.67	146	1.03
						600	5.47	34.14	26.96	118	1.16
						700	4.58	34.16	27.08	106	1.27
						800	4.09	34.17	27.14	101	1.37
						1000	3.43	34.33	27.33	83	1.56

HUGH M. SMITH; February 14, 1954; 1922 GCT; 36°03'N, 154°55'W; sounding, 3000 fm; wind, 070°, 13 kt; weather, rain; sea, rough; wire angle, 14°. 39

0	13.81	33.86	5.49	0.37	25.37	0	13.81	33.86	25.37	262	0.00
9	13.82	33.96	5.72	0.52	25.44	10	13.81	33.96	25.44	255	0.03
47	13.34	33.95	5.76	0.45	25.53	20	13.81	33.96	25.44	255	0.05
93	13.26	33.98	5.75	0.48	25.57	30	13.81	33.95	25.44	256	0.08
112	12.24	34.16	5.34	0.69	25.91	50	13.38	33.94	25.52	249	0.13
191	11.16	34.14	5.26	0.88	26.10	75	13.30	33.93	25.52	249	0.19
286	10.14	34.09	5.13	1.20	26.24	100	12.90	34.04	25.69	234	0.25
384	8.64	34.05	4.47	1.59	26.45	125	11.88	34.16	25.98	207	0.30
478	6.78	33.95	3.91	1.93	26.64	150	11.39	34.15	26.06	199	0.36
577	5.42	33.95	2.85	2.61	26.82	200	11.07	34.14	26.11	195	0.45
770	4.10	34.11	1.15	3.14	27.09	250	10.53	34.11	26.19	189	0.55
958	3.44	34.31	0.42	3.43	27.32	300	9.95	34.09	26.27	182	0.64
1152	3.02	34.36	0.46	3.64	27.39	400	8.32	34.03	26.49	162	0.82
						500	6.43	33.94	26.68	144	0.97
						600	5.20	33.96	26.85	127	1.10
						700	4.44	34.04	27.00	113	1.22
						800	3.97	34.14	27.13	101	1.33
						1000	3.35	34.32	27.33	82	1.52

a) Value seems anomalous, but not positively out.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
40	HUGH M. SMITH; February 15, 1954; 0403 GCT; 37°03'N, 154°55'W; sounding, 3000 fm; wind, 320°, 21 kt; weather, partly cloudy; sea, rough; wire angle, 25°.										
0	12.86	33.91	5.97	0.58	25.60	0	12.86	33.91	25.60	240	0.00
8	12.87	34.02	5.92	0.58	25.68	10	12.87	34.03	25.69	232	0.02
57	12.80	34.02	5.87	0.60	25.69	20	12.87	34.02	25.68	233	0.05
115	12.50	34.07	- a)	0.77	25.79	30	12.86	34.02	25.68	233	0.07
195	10.70	34.16	5.48	1.10	26.20	50	12.82	34.02	25.69	232	0.12
293	9.74	34.14	5.01	1.14	26.34	75	12.76	34.03	25.71	231	0.17
397	7.94	34.07	4.35	1.48	26.57	100	12.63	34.05	25.75	228	0.23
495	6.02	33.98	3.56	2.33	26.77	125	12.29	34.08	25.84	220	0.29
594	5.00	34.02	2.41	2.60	26.92	150	11.30	34.12	26.06	200	0.34
790	4.01	34.18	0.99	3.07	27.16	200	10.64	34.16	26.21	186	0.44
990	3.44	34.29	0.50	3.38	27.30	250	10.12	34.16	26.30	179	0.53
1183	2.98	34.31	1.26	- a)	27.36	300	9.64	34.14	26.36	173	0.62
						400	7.88	34.07	26.58	153	0.78
						500	5.95	33.98	26.78	134	0.92
						600	4.96	34.02	26.93	120	1.05
						700	4.35	34.10	27.06	108	1.16
						800	3.98	34.19	27.17	98	1.27
						1000	3.42	34.29	27.30	85	1.45
41	HUGH M. SMITH; February 15, 1954; 1930 GCT; 35°40'N, 153°15'W; sounding, 3000 fm; wind, 240°, 29 kt; weather, cloudy; sea, very rough; wire angle, 35°.										
0	13.86	33.96	5.60	0.26	25.43	0	13.86	33.96	25.43	256	0.00
8	13.88	34.00	5.77	0.37	25.46	10	13.88	34.00	25.46	253	0.03
45	13.88	34.00	5.75	0.31	25.46	20	13.88	34.02	25.47	252	0.05
71	13.92	33.98	5.72	0.39	25.44	30	13.89	34.02	25.47	253	0.08
141	11.48	34.11	5.33	0.71	26.02	50	13.91	34.00	25.45	255	0.13
183	11.18	34.16	5.29	1.13	26.11	75	13.92	33.98	25.44	257	0.19
274	10.14	34.16	5.42	1.21	26.29	100	12.99	34.02	25.66	237	0.25
369	8.25	34.04	4.34	1.42	26.50	125	11.80	34.07	25.92	212	0.31
461	6.64	33.95	3.88	1.71	26.66	150	11.38	34.12	26.04	201	0.36
552	5.28	33.96	2.67	2.50	26.84	200	11.03	34.17	26.14	192	0.46
734	4.16	34.11	1.12	2.95	27.08	250	10.48	34.17	26.24	184	0.55
921	3.51	34.25	0.52	3.34	27.26	300	9.65	34.13	26.35	174	0.64
1107	3.12	34.36	0.72	3.34	27.39	400	7.68	34.00	26.56	155	0.81
						500	6.01	33.95	26.74	137	0.95
						600	4.86	33.99	26.91	121	1.08
						700	4.27	34.08	27.05	108	1.20
						800	3.89	34.16	27.15	99	1.30
						1000	3.34	34.30	27.32	84	1.48
42	HUGH M. SMITH; February 16, 1954; 1817 GCT; 33°05'N, 153°04'W; sounding, 3100 fm; wind, 300°, 16 kt; weather, intermittent slight drizzle; sea, very rough; wire angle, 40°.										
0	16.08	34.23	5.63	0.24	25.16	0	16.08	34.23	25.16	282	0.00
8	16.07	34.23	5.64	0.24	25.16	10	16.07	34.23	25.16	282	0.03
41	16.10	34.25	5.61	0.24	25.17	20	16.08	34.24	25.16	282	0.06
82	16.08	34.25	5.63	0.34	25.17	30	16.09	34.24	25.16	282	0.08
106	13.24	34.25	5.26	0.40	25.78	50	16.10	34.25	25.17	282	0.14
164	12.15	34.22	5.37	0.45	25.97	75	16.09	34.25	25.17	283	0.21
247	11.19	34.23	5.29	0.54	26.16	100	13.98	34.25	25.63	239	0.28
332	9.90	34.14	4.82	0.96	26.32	125	12.80	34.24	25.86	218	0.33
414	8.46	34.07	4.52	1.36	26.50	150	12.40	34.23	25.93	212	0.39
501	6.78	33.98	3.97	1.86	26.67	200	11.71	34.23	26.07	200	0.49
667	4.78	34.02	2.02	2.68	26.95	250	11.15	34.23	26.17	191	0.59
849	3.92	34.22	0.66	3.54	27.20	300	10.42	34.18	26.26	183	0.68
1031	3.40	34.34	0.36	3.46	27.34	400	8.72	34.08	26.46	165	0.86
						500	6.80	33.98	26.66	146	1.01
						600	5.42	33.98	26.84	129	1.15
						700	4.56	34.05	26.99	114	1.27
						800	4.07	34.16	27.13	101	1.38
						1000	3.49	34.32	27.32	84	1.56

a) Sample lost.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; February 17, 1954; 0319 GCT; 31°59'N, 153°02'W; sounding, 2900 fm; wind, 340°, 13 kt; weather, partly cloudy; sea, moderate; wire angle, 28°.											43
0	16.28	34.27	5.65	0.24	25.14	0	16.28	34.27	25.14	283	0.00
8	16.28	34.29	5.23	0.35	25.16	10	16.28	34.29	25.16	282	0.03
46	16.22	34.29	5.44	0.37	25.17	20	16.26	34.30	25.17	281	0.06
79	16.24	34.29	5.48	0.38	25.17	30	16.25	34.30	25.17	281	0.08
109	14.64	34.23	5.41	0.53	25.48	50	16.22	34.29	25.17	282	0.14
186	12.14	34.18	5.27	0.72	25.95	75	16.24	34.29	25.17	283	0.21
279	11.12	34.23	5.03	1.11	26.17	100	15.80	34.25	25.24	277	0.28
376	9.62	34.13	4.74	1.23	26.36	125	13.00	34.21	25.80	224	0.34
471	7.65	34.00	4.21	1.66	26.56	150	12.50	34.19	25.88	216	0.40
565	6.04	33.96	3.17	2.10	26.75	200	11.93	34.19	25.99	207	0.51
752	4.22	34.13	1.16	2.84	27.09	250	11.20	34.22	26.15	193	0.61
942	3.61	34.29	0.44	3.09	27.28	300	10.84	34.22	26.22	188	0.70
1129	3.20	34.42	0.46	3.04	27.43	400	9.13	34.09	26.41	171	0.88
						500	7.11	33.98	26.62	150	1.04
						600	5.58	33.98	26.82	131	1.18
						700	4.57	34.07	27.01	113	1.30
						800	4.00	34.17	27.15	99	1.41
						1000	3.48	34.33	27.33	83	1.59
HUGH M. SMITH; February 17, 1954; 1115 GCT; 30°58'N, 153°00'W; sounding, 2800 fm; wind, 060°, 6 kt; weather, cloudy; sea, moderate; wire angle, 18°.											44
0	18.46	34.94	5.32	0.21	25.13	0	18.46	34.94	25.13	284	0.00
8	18.48	34.96	5.28	0.32	25.14	10	18.48	34.96	25.14	284	0.03
54	18.46	34.90	5.22	0.34	25.10	20	18.47	34.96	25.14	284	0.06
102	17.88	34.76	5.33	0.21	25.14	30	18.47	34.95	25.14	285	0.09
135	17.37	34.65	5.37	0.30	25.18	50	18.47	34.91	25.11	288	0.14
186	15.78	34.43	5.39	0.43	25.38	75	18.35	34.84	25.08	291	0.21
266	12.01	34.27	4.95	0.63	26.04	100	17.91	34.77	25.14	287	0.29
370	9.94	34.14	4.73	0.92	26.31	125	17.55	34.68	25.16	286	0.36
463	8.22	34.02	4.43	1.29	26.49	150	16.99	34.58	25.21	281	0.43
559	6.50	33.96	3.60	1.95	26.69	200	15.11	34.39	25.50	255	0.56
747	4.46	34.05	1.26	2.82	27.00	250	12.75	34.29	25.91	216	0.68
934	3.77	34.27	0.44	3.26	27.25	300	11.15	34.22	26.16	193	0.78
1129	3.38	34.42	0.50	3.24	27.41	400	9.38	34.10	26.37	174	0.97
						500	7.53	33.99	26.57	155	1.13
						600	5.92	33.96	26.76	137	1.28
						700	4.82	34.01	26.93	120	1.41
						800	4.18	34.11	27.08	106	1.52
						1000	3.64	34.32	27.30	86	1.71
HUGH M. SMITH; February 18, 1954; 0433, 0505 GCT; 29°31'N, 150°59'W; sounding, 3000 fm; wind, 120°, 8 kt; weather, cloudy, distant precipitation; sea, slight; wire angle, 00°, missing.											45
0	18.78	34.94	5.32	0.27	25.05	0	18.78	34.94	25.05	292	0.00
9	18.77	34.92	-	0.27	25.04	10	18.77	34.92	25.04	293	0.03
48	18.68	34.92	5.18	0.20	25.06	20	18.74	34.91	25.04	294	0.06
111	18.71	34.92	5.20	0.27	25.05	30	18.72	34.91	25.04	294	0.09
145	16.75	34.56	5.24	0.30	25.25	50	18.68	34.93	25.07	292	0.15
198	13.69	34.25	4.98	0.69	25.69	75	18.70	34.97	25.09	290	0.22
295	11.36	34.22	5.02	1.06	26.12	100	18.70	34.95	25.08	293	0.29
396	9.32	34.09	4.61	1.47	26.38	125	17.99	34.78	25.12	289	0.36
492	7.32	33.96	4.10	2.03	26.58	150	16.43	34.52	25.30	273	0.44
592	5.50	34.00	2.53	2.62	26.85	200	13.62	34.25	25.71	235	0.56
						250	12.16	34.24	25.99	209	0.67
789	4.22	34.16	0.82	3.04	27.12	300	11.26	34.22	26.14	195	0.77
980	3.56	34.31	0.45	3.46	27.30	400	9.23	34.08	26.38	173	0.96
1175	3.16	34.45	0.64	3.46	27.45	500	7.15	33.96	26.60	152	1.12
						600	5.41	34.00	26.86	127	1.26
						700	4.57	34.08	27.02	112	1.38
						800	4.17	34.17	27.13	101	1.49
						1000	3.52	34.32	27.32	84	1.67

	OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
	Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
	m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
46	HUGH M. SMITH; February 18, 1954; 1717 GCT; 31°04'N, 150°59'W; sounding, 2700 fm; wind, 210°, 12 kt; weather, cloudy; sea, slight; wire angle, 25°.											
	0	17.94	34.78	5.49	0.20	25.14	0	17.94	34.78	25.14	284	0.00
	8	17.98	34.97a)	5.34	0.20	25.27	10	17.98	34.97	25.27	271	0.03
	49	18.00	34.88a)	5.40	0.22	25.20	20	18.00	34.94	25.24	274	0.05
	104	18.06	34.76	5.38	0.13	25.09	30	18.00	34.92	25.23	276	0.08
	133	16.02	34.51	5.19	0.34	25.39	50	18.00	34.88	25.20	279	0.14
	171	14.10	34.33	4.90	0.62	25.67	75	18.02	34.85	25.17	283	0.21
	254	11.58	34.14	4.79	1.03	26.02	100	18.05	34.78	25.11	289	0.28
	344	10.03	34.13	4.75	1.32	26.29	125	16.63	34.58	25.30	272	0.35
	429	8.51	34.05	4.54	1.61	26.47	150	15.08	34.42	25.53	251	0.42
	519	6.80	33.98	3.92	1.99	26.66	200	13.03	34.24	25.82	224	0.53
	696	4.61	34.02	1.49	3.06	26.96	250	11.66	34.14	26.01	207	0.64
	873	3.84	34.22	0.51	3.40	27.20	300	10.71	34.13	26.17	192	0.74
	1060	3.44	34.40	0.52	3.44	27.39	400	9.04	34.08	26.41	170	0.92
							500	7.15	33.99	26.62	150	1.08
							600	5.61	33.97	26.81	132	1.22
							700	4.58	34.02	26.97	117	1.35
							800	4.05	34.13	27.11	103	1.46
							1000	3.57	34.34	27.33	84	1.64
47	HUGH M. SMITH; February 19, 1954; 0405 GCT; 32°30'N, 151°01'W; sounding, 3000 fm; wind, 210°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 02°.											
	0	16.62	34.27	5.55	0.24	25.06	0	16.62	34.27	25.06	291	0.00
	9	16.56	34.25	5.47	0.30	25.06	10	16.56	34.25	25.06	291	0.03
	48	16.45	34.23	5.51	0.27	25.07	20	16.51	34.24	25.07	291	0.06
	106	16.36	34.20	5.53	0.30	25.07	30	16.48	34.23	25.06	291	0.09
	125	14.46	34.07	5.48	0.41	25.39	50	16.45	34.23	25.07	291	0.15
	197	11.87	34.14	5.16	0.86	25.97	75	16.42	34.25	25.09	290	0.22
	293	10.16	34.11	4.86	1.18	26.25	100	16.40	34.22	25.08	293	0.29
	395	8.66	34.05	4.53	1.47	26.45	125	14.46	34.07	25.39	263	0.36
	491	6.79	33.96	3.97	1.91	26.65	150	13.08	34.10	25.70	234	0.42
	591	5.46	34.00	2.66	2.42	26.85	200	11.80	34.14	25.98	208	0.53
	788	4.07	34.18	0.62	3.06	27.15	250	10.78	34.13	26.16	192	0.63
	978	3.56	34.34	0.38	3.12	27.33	300	10.06	34.11	26.27	182	0.73
	1172	3.21	34.43	0.63	3.20	27.43	400	8.56	34.04	26.46	165	0.90
							500	6.65	33.96	26.67	145	1.06
							600	5.37	34.01	26.87	126	1.19
							700	4.54	34.09	27.03	111	1.31
							800	4.02	34.19	27.16	98	1.41
							1000	3.52	34.35	27.34	82	1.60
48	HUGH M. SMITH; February 19, 1954; 1613 GCT; 34°00'N, 151°02'W; sounding, 3100 fm; wind, 160°, 21 kt; weather, cloudy; sea, moderate; wire angle, 13°.											
	0	15.24	34.11	5.76	0.26	25.25	0	15.24	34.11	25.25	273	0.00
	9	15.24	34.11	5.60	0.36	25.25	10	15.24	34.11	25.25	273	0.03
	51	15.10	34.14	5.76	0.23	25.31	20	15.23	34.12	25.26	272	0.05
	107	14.34	34.18	5.49	0.45	25.50	30	15.21	34.12	25.27	272	0.08
	154	12.78	34.23	5.30	0.67	25.86	50	15.11	34.14	25.30	269	0.14
	205	11.90	34.22	5.43	0.85	26.02	75	15.07	34.16	25.33	268	0.20
	416	8.30	34.05	4.38	1.63	26.50	100	15.04	34.17	25.34	267	0.27
	520	6.18	33.95	3.56	2.34	26.72	125	13.40	34.20	25.71	232	0.33
	625	4.98	33.96	2.32	2.90	26.88	150	12.92	34.23	25.83	221	0.39
	828	3.92	34.16	0.77	3.48	27.15	200	11.97	34.22	26.01	206	0.50
	1031	3.30	34.33	0.34	3.62	27.34	250	11.17	34.19	26.13	195	0.60
	1225	3.06	34.40	0.34	3.65	27.42	300	10.33	34.16	26.26	183	0.69
							400	8.59	34.07	26.48	164	0.86
							500	6.56	33.96	26.68	144	1.02
							600	5.20	33.95	26.84	128	1.15
							700	4.47	34.02	26.98	115	1.28
							800	4.00	34.13	27.12	102	1.38
							1000	3.37	34.31	27.32	83	1.57
							1200	3.09	34.39	27.41	76	1.73

a) Value seems anomalous, but not positively out. One titration only was made because sample insufficient.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; February 20, 1954; 1253 GCT; 35°27'N, 150°58'W; sounding, 3100 fm; wind, 230°, 16 kt; weather, drizzle; sea, moderate; wire angle, 12°. 49

0	14.23	33.98	5.80	0.23	25.37	0	14.23	33.98	25.37	261	0.00
9	14.22	33.98	5.61	0.38	25.37	10	14.22	33.98	25.37	261	0.03
46	14.06	33.98	5.74	0.47	25.41	20	14.19	33.98	25.38	261	0.05
103	13.40	33.96	5.81	0.51	25.53	30	14.15	33.98	25.39	261	0.08
121	11.96	34.02	5.47	0.70	25.86	50	14.05	33.97	25.40	260	0.13
191	10.80	34.07	5.16	0.98	26.11	75	13.92	33.95	25.41	259	0.20
285	9.84	34.13	4.76	1.18	26.32	100	13.60	33.96	25.49	253	0.26
383	8.16	34.04	4.30	1.77	26.52	125	11.79	34.03	25.90	214	0.32
478	6.34	33.93	3.65	2.37	26.69	150	11.30	34.06	26.01	204	0.37
577	5.20	33.95	2.65	2.79	26.84	200	10.71	34.08	26.13	194	0.47
771	4.02	34.16	1.01	3.45	27.14	250	10.19	34.12	26.25	183	0.56
960	3.40	34.31	0.48	3.66	27.32	300	9.61	34.12	26.35	174	0.65
1155	3.06	34.42	0.52	3.56	27.44	400	7.82	34.02	26.55	156	0.82
						500	6.04	33.93	26.72	139	0.97
						600	5.01	33.97	26.88	124	1.10
						700	4.34	34.07	27.03	110	1.21
						800	3.90	34.19	27.17	97	1.32
						1000	3.33	34.33	27.34	82	1.50

HUGH M. SMITH; February 21, 1954; 0151 GCT; 37°02'N, 150°58'W; sounding, 2800 fm; wind, 260°, 8 kt; weather, intermittent slight drizzle; sea, moderate; wire angle, 06°. 50

0	13.40	33.91a)	6.03	0.29	25.49	0	13.40	33.91	25.49	250	0.00
11	13.28	33.91	5.93	0.50	25.51	10	13.29	33.91	25.51	248	0.02
49	13.16	33.89	5.97	0.47	25.52	20	13.23	33.91	25.52	248	0.05
106	12.82	33.89	5.89	0.49	25.59	30	13.20	33.90	25.52	248	0.07
145	11.54	34.09	5.48	0.65	25.99	50	13.16	33.89	25.52	248	0.12
197	10.87	34.14	5.28	0.88	26.15	75	13.13	33.87	25.51	250	0.19
292	9.84	34.13	4.88	1.10	26.32	100	12.90	33.88	25.57	245	0.25
392	7.86	34.02	4.31	1.41	26.55	125	12.21	33.99	25.78	225	0.31
487	6.02	33.91	3.54	2.10	26.71	150	11.45	34.10	26.01	204	0.36
586	4.96	33.95	2.41	2.71	26.87	200	10.84	34.14	26.16	191	0.46
781	3.97	34.18	0.96	3.19	27.16	250	10.33	34.15	26.25	183	0.55
971	3.38	34.29	0.46	3.57	27.31	300	9.70	34.12	26.34	176	0.64
1165	3.00	34.42	0.33	3.72	27.44	400	7.69	34.01	26.56	155	0.81
						500	5.85	33.91	26.73	138	0.95
						600	4.86	33.96	26.89	123	1.08
						700	4.27	34.08	27.05	108	1.20
						800	3.90	34.19	27.18	97	1.30
						1000	3.32	34.31	27.33	83	1.48

HUGH M. SMITH; February 21, 1954; 1917, 1943 GCT; 35°30'N, 148°57'W; sounding, 2900 fm; wind, 200°, 17 kt; weather, cloudy; sea, moderate; wire angle, 25°, 35°. 51

0	14.94	33.96	5.28	0.22	25.20	0	14.94	33.96	25.20	277	0.00
8	14.94	34.02	5.73	0.37	25.25	10	14.94	34.02	25.25	273	0.03
41	14.84	33.99a)	5.69	0.46	25.25	20	14.91	34.03	25.26	272	0.05
84	14.68	33.98	5.66	0.47	25.27	30	14.88	34.02	25.26	273	0.08
105	14.60	33.96	5.66	0.39	25.28	50	14.81	33.99	25.25	274	0.14
173	11.69	34.07a)	5.29	1.12	25.95	75	14.72	33.98	25.27	273	0.21
259	11.01	34.20	5.02	1.22	26.17	100	14.64	33.96	25.27	274	0.27
						125	13.85	33.98	25.45	257	0.34
320	9.94	34.13	4.75	1.26	26.30	150	12.20	34.02	25.81	223	0.40
401	8.54	34.09	4.40	1.59	26.50	200	11.35	34.13	26.05	201	0.51
490	6.76	33.96	3.92	2.12	26.65	250	11.03	34.19	26.16	192	0.60
667	4.61	34.07	1.64	3.12	27.00	300	10.32	34.16	26.26	183	0.70
844	3.80	34.22	0.63	3.54	27.21	400	8.56	34.09	26.50	162	0.87
1031	3.29	34.40	0.46	3.81	27.40	500	6.60	33.96	26.68	144	1.02
						600	5.24	34.00	26.88	125	1.16
						700	4.40	34.10	27.05	108	1.28
						800	3.92	34.18	27.16	98	1.38
						1000	3.37	34.37	27.37	79	1.56

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
52	HUGH M. SMITH; February 22, 1954; 0834 GCT; 33°57'N, 148°56'W; sounding, 3100 fm; wind, 200°, 15 kt; weather, missing; sea, moderate; wire angle, 12°.										
0	15.46	34.03a)	5.84	0.25	25.14	0	15.46	34.03	25.14	283	0.00
9	15.45	34.07a)	5.75	0.36	25.18	10	15.45	34.07	25.18	280	0.03
51	15.38	34.02	5.70	0.22	25.15	20	15.42	34.08	25.19	279	0.06
96	14.40	33.98	5.54	0.35	25.33	30	15.40	34.07	25.19	280	0.08
138	11.70	33.96	5.48	0.74	25.86	50	15.39	34.02	25.15	284	0.14
203	10.72	34.07	5.29	1.25	26.12	75	15.32	34.00	25.15	284	0.21
304	9.36	34.11	4.70	1.58	26.38	100	14.15	33.98	25.39	263	0.28
412	7.52	34.02	4.22	2.02	26.60	125	12.10	33.96	25.78	225	0.34
515	5.82	33.95a)	3.27	2.63	26.77	150	11.37	33.98	25.93	211	0.40
617	4.76	34.00	1.87	3.13	26.93	200	10.72	34.06	26.11	195	0.50
819	3.84	34.18	0.65	3.59	27.17	250	9.75	34.11	26.32	176	0.59
1020	3.32	34.34	0.38	3.74	27.35	300	9.42	34.11	26.37	172	0.68
1213	2.98	34.49a)	0.48	3.84	27.50	400	7.73	34.03	26.57	154	0.84
						500	6.05	33.96	26.75	137	0.99
						600	4.90	33.99	26.91	122	1.11
						700	4.26	34.07	27.04	109	1.23
						800	3.88	34.16	27.15	99	1.33
						1000	3.36	34.32	27.33	83	1.52
						1200	3.00	34.48	27.49	68	1.67
53	HUGH M. SMITH; February 22, 1954; 2100 GCT; 32°32'N, 148°51'W; sounding, 3000 fm; wind, 180°, 14 kt; weather, cloudy; sea, moderate; wire angle, 16°.										
0	17.00	34.36	5.52	0.25	25.04	0	17.00	34.36	25.04	293	0.00
9	16.98	34.36	5.42	0.53	25.05	10	16.99	34.37	25.05	292	0.03
45	17.46	34.65	5.37	0.31	25.15	20	17.09	34.43	25.07	290	0.06
72	17.64	34.78	5.30	0.22	25.21	30	17.22	34.51	25.11	288	0.09
90	17.36	34.72a)	5.25	0.20	25.23	50	17.53	34.69	25.17	282	0.14
185	12.60	34.31	4.86	0.91	25.96	75	17.61	34.77	25.21	279	0.21
275	10.92	34.23a)	4.87	1.28	26.21	100	16.92	34.67	25.30	271	0.28
370	8.64	34.07	4.42	1.86	26.47	125	14.50	34.45	25.68	236	0.35
461	7.07	34.02a)	4.02	2.29	26.66	150	13.70	34.38	25.79	226	0.40
556	5.75	34.05	2.88	2.78	26.86	200	12.24	34.29	26.01	205	0.51
739	4.27	34.13	1.00	3.55	27.09	250	11.27	34.24	26.15	193	0.61
929	3.72	34.38	0.96	3.56	27.34	300	10.31	34.19	26.29	181	0.70
1120	3.36	34.47	0.53	3.74	27.45	400	8.07	34.04	26.53	158	0.87
						500	6.49	34.03	26.75	138	1.02
						600	5.29	34.06	26.92	121	1.15
						700	4.49	34.10	27.04	110	1.27
						800	4.03	34.21	27.18	97	1.37
						1000	3.59	34.41	27.38	79	1.55
54	HUGH M. SMITH; February 23, 1954; 2800 GCT; 31°00'N, 149°00'W; sounding, 2800 fm; wind, 160°, 13 kt; weather, partly cloudy; sea, moderate; wire angle, 20°.										
0	18.58	34.88	5.33	0.14	25.05	0	18.58	34.88	25.05	291	0.00
8	18.60	34.85	5.37	0.29	25.03	10	18.59	34.85	25.03	294	0.03
44	18.39	34.83	5.36	0.15	25.06	20	18.55	34.83	25.02	295	0.06
89	18.26	34.78	5.36	0.29	25.06	30	18.50	34.83	25.04	294	0.09
134	16.08	34.46a)	5.25	0.34	25.33	50	18.32	34.83	25.08	291	0.15
185	13.79	34.31	5.13	0.49	25.72	75	18.25	34.81	25.08	291	0.22
274	11.12	34.22	4.98	0.96	26.17	100	18.25	34.71	25.01	299	0.29
368	9.18	34.13	4.67	1.55	26.43	125	16.59	34.53	25.27	275	0.36
460	7.43	34.07a)	4.19	1.91	26.65	150	15.32	34.40	25.46	257	0.43
555	5.96	34.04	3.10	2.48	26.82	200	13.25	34.29	25.81	225	0.55
741	4.46	34.20	0.93	3.28	27.12	250	11.72	34.23	26.06	201	0.66
926	3.88	34.33	0.37	3.44	27.29	300	10.53	34.19	26.25	184	0.76
1118	3.38	34.54	0.67	3.54	27.50	400	8.54	34.11	26.51	160	0.93
						500	6.76	34.05	26.72	140	1.08
						600	5.47	34.07	26.91	123	1.21
						700	4.67	34.15	27.06	108	1.32
						800	4.22	34.24	27.18	97	1.43
						1000	3.69	34.41	27.37	80	1.60

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; February 24, 1954; 0525 GCT; 29°29'N, 146°59'W; sounding, 2800 fm; wind, 100°, 22 kt; weather, cloudy, precipitation within sight; sea, moderate; wire angle, 16°. 55

0	18.67	34.99	5.26	0.10	25.12	0	18.67	34.99	25.12	286	0.00
9	18.66	34.99a)	5.13	0.18	25.12	10	18.65	34.99	25.12	285	0.03
50	18.28	34.99	5.27	0.23	25.21	20	18.54	34.99	25.15	283	0.06
91	18.90	35.03	5.12	0.29	25.09	30	18.44	34.99	25.17	281	0.09
133	18.79	35.03a)	5.14	0.07	25.12	50	18.28	34.99	25.21	278	0.14
203	12.78	34.16	4.80	0.75	25.81	75	18.64	35.01	25.14	286	0.21
304	10.73	34.20	4.81	1.17	26.22	100	18.91	35.05	25.10	290	0.28
411	8.90	34.07a)	4.41	1.45	26.43	125	18.85	35.05	25.12	290	0.36
512	6.71	33.98a)	3.42	2.09	26.68	150	15.80	34.44	25.38	265	0.43
614	5.32	34.00	1.89	2.79	26.87	200	12.80	34.16	25.80	225	0.55
814	4.06	34.22	0.47	3.35	27.18	250	11.32	34.20	26.11	196	0.65
1015	3.56	34.34	0.48	3.26	27.33	300	10.73	34.18	26.21	189	0.75
1210	3.14	34.43	0.83	3.25	27.44	400	9.09	34.09	26.41	170	0.93
						500	6.96	33.99	26.65	147	1.09
						600	5.47	33.99	26.84	129	1.23
						700	4.61	34.09	27.02	112	1.35
						800	4.10	34.20	27.16	98	1.45
						1000	3.58	34.33	27.32	84	1.63
						1200	3.16	34.42	27.43	74	1.79

HUGH M. SMITH; February 24, 1954; 1749 GCT; 31°01'N, 146°56'W; sounding, 2900 fm; wind, 110°, 24 kt; weather, cloudy; sea, moderate; wire angle, 05°. 56

0	17.99	34.57a)	5.30	0.15	24.96	0	17.99	34.57	24.96	300	0.00
9	17.97	34.56	5.39	0.21	24.96	10	17.97	34.56	24.96	301	0.03
53	17.86	34.61	5.41	0.11	25.03	20	17.96	34.58	24.98	299	0.06
100	17.25	34.42	5.42	0.19	25.03	30	17.95	34.59	24.99	299	0.09
134	15.04	33.93	5.64	0.25	25.16	50	17.87	34.61	25.02	296	0.15
210	12.30	34.14	5.25	0.78	25.88	75	17.78	34.57	25.02	298	0.22
316	10.62	34.11	5.01	1.10	26.17	100	17.25	34.42	25.03	297	0.30
427	8.54	34.04	4.59	1.64	26.46	125	15.90	34.06	25.07	294	0.37
532	6.36	33.93a)	3.39	2.23	26.68	150	14.10	34.02	25.43	260	0.44
636	5.20	33.89	1.81	2.74	26.79	200	12.45	34.14	25.85	220	0.56
841	4.04	34.20	0.51	3.40	27.17	250	11.54	34.15	26.04	204	0.67
1047	3.56	34.41a)	0.50	3.29	27.38	300	10.80	34.13	26.15	194	0.77
1242	3.14	34.49	0.89	3.29	27.49	400	9.07	34.06	26.39	172	0.95
						500	6.98	33.96	26.62	150	1.11
						600	5.52	33.89	26.76	137	1.25
						700	4.72	33.96	26.90	123	1.38
						800	4.18	34.12	27.09	105	1.50
						1000	3.64	34.37	27.34	82	1.68
						1200	3.23	34.47	27.46	71	1.84

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
57	HUGH M. SMITH; February 25, 1954; 0604 GCT; 32°28'N, 146°59'W; sounding, 3100 fm; wind, 050°, 22 kt; weather, partly cloudy; sea, moderate; wire angle, 09°.										
0	17.28	34.36a)	5.22	0.11	24.98	0	17.28	34.36	24.98	299	0.00
9	17.28	34.45	5.42	0.15	25.04	10	17.27	34.45	25.05	292	0.03
52	17.10	34.43	5.40	0.16	25.07	20	17.23	34.48	25.08	290	0.06
72	17.18	34.41a)	5.41	0.16	25.04	30	17.18	34.49	25.10	288	0.09
106	16.96	34.43	5.34	0.07	25.11	50	17.11	34.44	25.08	291	0.15
210	12.08	34.13	5.01	0.65	25.92	75	17.18	34.41	25.04	295	0.22
316	10.37	34.11a)	4.79	0.97	26.21	100	17.04	34.43	25.09	292	0.29
425	8.32	34.00	4.34	1.49	26.46	125	14.50	33.97	25.31	271	0.36
530	6.33	33.95	3.61	1.96	26.70	150	13.15	34.08	25.67	237	0.43
635	4.98	33.98	2.09	2.61	26.89	200	12.25	34.13	25.89	217	0.54
839	3.84	34.16	0.63	3.25	27.16	250	11.26	34.11	26.06	202	0.64
1044	3.42	34.31	0.33	3.29	27.32	300	10.53	34.11	26.19	190	0.74
1239	3.14	34.47	0.67	3.20	27.47	400	8.80	34.03	26.41	170	0.92
						500	6.87	33.96	26.64	148	1.08
						600	5.37	33.96	26.83	130	1.22
						700	4.47	34.03	26.99	114	1.34
						800	3.95	34.12	27.11	103	1.45
						1000	3.47	34.28	27.29	87	1.64
						1200	3.20	34.44	27.44	73	1.80
58	HUGH M. SMITH; February 25, 1954; 1901 GCT; 33°55'N, 147°05'W; sounding, 3000 fm; wind, 100°, 15 kt; weather, partly cloudy; sea, moderate; wire angle, 25°.										
0	16.03	34.04	5.74	0.13	25.02	0	16.03	34.04	25.02	295	0.00
8	16.02	34.02	5.71	0.18	25.01	10	16.02	34.02	25.01	296	0.03
52	16.02	34.03	5.73	0.18	25.02	20	16.02	34.01	25.00	297	0.06
99	15.90	34.02	5.62	0.14	25.04	30	16.02	34.01	25.00	297	0.09
134	15.48	33.96	5.61	0.16	25.08	50	16.02	34.03	25.02	297	0.15
191	11.64	33.72a)	5.37	0.62	25.68	75	16.00	34.03	25.02	297	0.22
287	9.18	33.93a)	4.73	1.38	26.27	100	15.90	34.02	25.04	296	0.30
390	7.48	33.95	4.20	1.87	26.55	125	15.67	33.98	25.06	295	0.37
487	6.12	33.95	3.39	2.26	26.73	150	13.00	33.78	25.47	256	0.44
585	4.97	33.96	2.06	2.84	26.88	200	11.28	33.73	25.76	229	0.56
777	4.25	34.18	0.53	3.30	27.13	250	10.00	33.90	26.11	196	0.67
973	3.58	34.34	0.39	3.35	27.33	300	8.93	33.94	26.32	177	0.76
1164	3.15	34.29	0.51	3.31	27.33	400	7.33	33.95	26.57	154	0.93
						500	5.95	33.95	26.75	137	1.07
						600	4.88	33.97	26.89	123	1.20
						700	4.41	34.08	27.03	110	1.32
						800	4.16	34.21	27.16	98	1.42
						1000	3.52	34.33	27.32	84	1.60
59	HUGH M. SMITH; February 26, 1954; 0818 GCT; 35°31'N, 147°00'W; sounding, 3000 fm; wind, 090°, 16 kt; weather, cloudy; sea, moderate; wire angle, 10°.										
0	16.38	34.19a)	5.60	0.09	25.06	0	16.38	34.19	25.06	291	0.00
9	16.36	34.21a)	5.56	0.11	25.08	10	16.36	34.21	25.08	290	0.03
47	16.38	34.23	5.56	0.10	25.09	20	16.37	34.22	25.08	289	0.06
95	16.10	34.18	5.55	0.17	25.11	30	16.37	34.23	25.09	289	0.09
124	15.50	34.02a)	5.62	0.15	25.13	50	16.38	34.23	25.09	290	0.14
196	11.30	33.98	5.46	0.74	25.95	75	16.29	34.22	25.10	289	0.22
290	10.04	34.06a)	4.86	1.20	26.23	100	16.03	34.15	25.11	289	0.29
392	7.96	34.00	4.25	1.62	26.52	125	15.45	34.02	25.14	287	0.36
487	6.36	33.89	3.64	2.01	26.65	150	12.30	33.97	25.75	229	0.43
587	5.18	33.89	2.26	2.58	26.80	200	11.20	33.98	25.97	209	0.54
785	4.04	34.11	0.84	3.08	27.10	250	10.32	34.02	26.15	192	0.64
977	3.58	34.26a)	0.40	3.17	27.26	300	9.84	34.06	26.27	182	0.73
1174	3.13	34.42	0.47	3.18	27.43	400	7.81	33.99	26.53	158	0.90
						500	6.18	33.88	26.67	145	1.05
						600	5.07	33.90	26.82	130	1.19
						700	4.39	34.00	26.97	116	1.31
						800	3.99	34.12	27.11	103	1.42
						1000	3.53	34.28	27.28	87	1.61

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; February 26, 1954; 2055 GCT; 37°09'N, 146°58'W; sounding, 2700 fm; wind, 140°, 16 kt; weather, cloudy; sea, moderate; wire angle, 22°. 60

0	13.68	33.80	6.08	0.24	25.35	0	13.68	33.80	25.35	264	0.00
8	13.68	33.82	6.06	0.26	25.36	10	13.68	33.82	25.36	263	0.03
34	13.65	33.75	6.02	0.28	25.31	20	13.68	33.80	25.35	264	0.05
64	13.40	33.75	5.94	0.26	25.36	30	13.66	33.76	25.32	267	0.08
85	12.98	33.74a)	5.76	0.34	25.44	50	13.45	33.75	25.35	264	0.13
187	10.35	34.04	5.19	1.02	26.16	75	13.35	33.74	25.37	264	0.20
282	8.88	34.04	4.57	1.45	26.41	100	11.30	33.91	25.89	214	0.26
382	6.85	33.93	3.99	1.91	26.62	125	10.90	33.98	26.02	202	0.31
478	5.55	33.87	3.04	2.35	26.74	150	10.65	34.01	26.09	197	0.36
575	4.80	34.05	1.95	2.81	26.97	200	10.13	34.05	26.21	186	0.46
767	3.88	34.13	0.71	3.16	27.13	250	9.35	34.06	26.35	174	0.55
963	3.30	34.27	0.37	3.26	27.30	300	8.51	34.02	26.45	164	0.63
1154	2.93	34.38	0.34	3.29	27.42	400	6.56	33.91	26.64	146	0.79
						500	5.35	33.90	26.79	133	0.92
						600	4.65	34.07	27.00	113	1.05
						700	4.14	34.12	27.09	104	1.16
						800	3.76	34.15	27.16	98	1.26
						1000	3.23	34.29	27.32	83	1.44

HUGH M. SMITH; February 27, 1954; 0730 GCT; 38°30'N, 147°01'W; sounding, 2900 fm; wind, 200°, 16 kt; weather, cloudy; sea, slight; wire angle, 06°. 61

0	12.78	33.62	5.88	0.34	25.39	0	12.78	33.62	25.39	260	0.00
9	12.77	33.57	6.03	0.34	25.35	10	12.77	33.57	25.35	263	0.03
28	12.78	33.65a)	6.06	0.36	25.41	20	12.77	33.61	25.38	261	0.05
38	12.78	33.64	6.05	0.30	25.40	30	12.78	33.65	25.41	258	0.08
95	11.44	33.46	6.20	0.41	25.52	50	12.10	33.51	25.43	257	0.13
195	10.32	34.09	5.04	1.05	26.21	75	11.55	33.47	25.51	250	0.19
290	8.69	34.04	4.51	1.48	26.44	100	11.40	33.49	25.55	247	0.26
391	6.54	33.93	3.81	1.99	26.66	125	11.15	33.62	25.70	233	0.32
487	5.39	33.94	2.87	2.37	26.81	150	11.30	33.78	25.79	225	0.37
586	4.57	34.00	1.77	2.86	26.95	200	10.25	34.10	26.23	184	0.47
782	3.76	34.18	0.65	3.05	27.18	250	9.43	34.10	26.36	172	0.56
972	3.28	34.33	0.37	3.12	27.35	300	8.47	34.03	26.46	163	0.65
1168	2.87	34.40a)	0.34	3.14	27.44	400	6.41	33.93	26.68	143	0.80
						500	5.26	33.95	26.84	128	0.94
						600	4.49	34.01	26.97	115	1.06
						700	4.01	34.10	27.09	104	1.17
						800	3.71	34.20	27.20	94	1.27
						1000	3.22	34.34	27.36	80	1.44

HUGH M. SMITH; February 27, 1954; 2349 GCT; 37°04'N, 145°01'W; sounding, 2700 fm; wind, 140°, 11 kt; weather, cloudy; sea, slight; wire angle, 14°. 62

0	14.36	33.84	6.03	0.23	25.24	0	14.36	33.84	25.24	274	0.00
9	14.25	33.84	6.03	0.26	25.26	10	14.25	33.84	25.26	272	0.03
41	14.20	33.87	5.93	0.24	25.29	20	14.22	33.85	25.27	271	0.05
89	13.44	33.77	5.92	0.36	25.37	30	14.21	33.86	25.28	271	0.08
116	12.18	34.00	5.48	0.58	25.80	50	14.16	33.83	25.27	272	0.14
190	10.43	34.07	5.12	1.10	26.17	75	13.45	33.78	25.38	263	0.20
284	9.48	34.11	4.74	1.36	26.36	100	13.35	33.78	25.40	261	0.27
382	7.49	34.02	4.22	1.83	26.60	125	11.88	34.03	25.88	216	0.33
476	6.22	33.89	3.50	2.19	26.67	150	11.17	34.08	26.05	200	0.38
574	5.07	33.96	2.15	2.74	26.87	200	10.32	34.08	26.20	187	0.48
768	3.92	34.14	0.79	3.22	27.13	250	9.80	34.11	26.31	177	0.57
956	3.36	34.31	0.40	3.21	27.32	300	9.17	34.10	26.41	169	0.65
1149	2.94	34.36	0.39	3.28	27.40	400	7.22	33.99	26.61	149	0.81
						500	5.91	33.90	26.72	140	0.96
						600	4.86	33.98	26.91	122	1.09
						700	4.20	34.07	27.05	108	1.20
						800	3.80	34.17	27.17	97	1.31
						1000	3.26	34.32	27.34	81	1.49

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

HBL

HMS-25

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
63	HUGH M. SMITH; February 28, 1954; 1303 GCT; 35°28'N, 144°59'W; sounding, 2900 fm; wind, 130°, 14 kt; weather, partly cloudy; sea, moderate; wire angle, 16°.										
0	15.40	34.04	5.44	0.16	25.16	0	15.40	34.04	25.16	281	0.00
9	15.40	33.98	5.66	0.17	25.12	10	15.40	33.98	25.12	286	0.03
59	15.40	33.95	5.70	0.17	25.09	20	15.42	33.96	25.10	288	0.06
83	15.24	33.89	5.53	0.19	25.08	30	15.43	33.94	25.08	290	0.09
129	14.80	33.86	5.59	0.19	25.16	50	15.42	33.94	25.08	290	0.14
188	11.94	33.78a)	5.35	0.68	25.67	75	15.30	33.91	25.09	291	0.22
282	10.16	33.98a)	4.90	1.18	26.15	100	14.95	33.87	25.13	287	0.29
379	8.40	33.89	4.43	1.66	26.36	125	14.87	33.86	25.14	287	0.36
472	6.59	33.82	3.83	2.06	26.57	150	13.85	33.82	25.33	270	0.43
571	5.26	33.82	2.61	2.60	26.73	200	11.62	33.80	25.75	230	0.55
761	4.12	34.04	0.82	3.24	27.03	250	10.57	33.98	26.08	200	0.66
950	3.64	34.28	0.35	3.30	27.27	300	9.84	33.97	26.20	189	0.76
1144	3.28	34.31	0.43	3.39	27.33	400	7.97	33.87	26.41	169	0.94
						500	6.16	33.81	26.61	150	1.10
						600	5.00	33.84	26.78	134	1.24
						700	4.35	33.95	26.94	119	1.37
						800	3.99	34.10	27.09	105	1.48
						1000	3.55	34.29	27.29	87	1.67
64	HUGH M. SMITH; March 1, 1954; 0046 GCT; 33°58'N, 144°58'W; sounding, 2700 fm; wind, 100°, 9 kt; weather, cloudy; sea, slight; wire angle, 15°.										
0	16.46	34.04	5.67	0.17	24.92	0	16.46	34.04	24.92	304	0.00
9	16.44	34.04	5.59	0.15	24.93	10	16.43	34.04	24.93	304	0.03
46	15.88	34.13a)	5.70	0.14	25.13	20	16.43	34.06	24.95	302	0.06
101	15.51	34.09	5.64	0.14	25.18	30	16.15	34.09	25.03	294	0.09
129	15.36	34.11	5.68	0.13	25.23	50	15.84	34.13	25.13	285	0.15
189	11.01	33.96	5.33	0.79	25.98	75	15.64	34.12	25.17	283	0.22
282	9.70	34.09	4.84	1.24	26.31	100	15.51	34.09	25.18	283	0.29
380	7.80	34.04	4.31	1.65	26.57	125	15.42	34.11	25.21	280	0.36
473	6.10	33.98	3.47	2.13	26.76	150	11.60	33.97	25.88	216	0.42
570	4.98	33.93a)	1.82	2.74	26.85	200	10.70	34.00	26.07	199	0.53
761	4.08	34.23	0.60	3.21	27.19	250	9.90	34.08	26.27	181	0.62
950	3.64	34.42	0.35	3.30	27.38	300	9.37	34.09	26.37	173	0.71
1144	3.24	34.49	0.47	3.34	27.48	400	7.40	34.03	26.62	149	0.87
						500	5.73	33.96	26.79	133	1.01
						600	4.77	33.96	26.90	122	1.14
						700	4.25	34.11	27.07	106	1.25
						800	3.97	34.28	27.24	91	1.35
						1000	3.54	34.44	27.41	76	1.52
65	HUGH M. SMITH; March 1, 1954; 1314 GCT; 32°24'N, 144°53'W; sounding, 2900 fm; wind, 120°, 9 kt; weather, cloudy; sea, slight; wire angle, 00°.										
0	16.61	34.17	5.55	0.13	24.99	0	16.61	34.17	24.99	298	0.00
9	16.61	34.22	5.58	0.12	25.03	10	16.61	34.22	25.03	294	0.03
48	16.54	34.16	5.55	0.10	25.00	20	16.60	34.22	25.03	295	0.06
106	16.36	34.11	5.48	0.09	25.00	30	16.58	34.21	25.03	295	0.09
131	14.85	33.88a)	5.49	0.29	25.16	50	16.57	34.16	24.99	299	0.15
198	11.08	33.73	5.28	0.74	25.79	75	16.40	34.12	25.00	299	0.22
295	9.92	33.96	4.75	1.19	26.17	100	16.36	34.13	25.02	298	0.30
396	8.21	33.98	4.41	1.54	26.46	125	16.36	34.09	24.99	302	0.37
493	6.38	33.82	3.24	2.09	26.59	150	13.64	33.79	25.35	268	0.44
594	5.04	33.89	2.13	2.65	26.81	200	11.03	33.73	25.80	225	0.57
792	4.05	34.09	0.62	3.18	27.08	250	10.30	33.93	26.09	199	0.67
984	3.64	34.33	0.30	3.12	27.31	300	9.84	33.97	26.20	189	0.77
1180	3.21	34.45	0.55	3.18	27.45	400	8.13	33.97	26.47	164	0.95
						500	6.27	33.82	26.61	150	1.10
						600	4.99	33.90	26.83	129	1.24
						700	4.34	33.99	26.97	116	1.37
						800	4.03	34.10	27.09	105	1.48
						1000	3.60	34.34	27.32	84	1.67

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

66

HUGH M. SMITH; March 2, 1954; 0019 GCT; 30°59'N, 144°44'W; sounding, 3000 fm; wind, 060°, 14 kt; weather, partly cloudy; sea, slight; wire angle, 16°.

0	18.67	34.85a)	5.39	0.09	25.01	0	18.67	34.85	25.01	296	0.00
9	18.68	34.86	5.36	0.09	25.01	10	18.68	34.86	25.01	296	0.03
41	18.62	34.85	5.34	0.09	25.02	20	18.67	34.86	25.02	296	0.06
90	18.62	34.88a)	5.35	0.08	25.04	30	18.65	34.86	25.02	296	0.09
133	18.58	34.87	5.31	0.09	25.05	50	18.62	34.86	25.03	296	0.15
187	15.36	34.24a)	5.08	0.34	25.33	75	18.62	34.87	25.04	296	0.22
278	11.34	33.96	4.98	0.93	25.92	100	18.62	34.90	25.06	294	0.30
374	9.14	33.98	4.63	1.41	26.32	125	18.60	34.89	25.06	295	0.37
466	7.10	33.89	4.29	1.96	26.55	150	18.20	35.00	25.24	279	0.44
562	5.78	33.93	2.11	2.59	26.76	200	14.67	34.16	25.42	263	0.58
752	4.74	34.13	0.47	3.24	27.04	250	12.38	33.98	25.74	232	0.70
940	3.94	34.34	0.40	3.27	27.29	300	10.74	33.96	26.03	205	0.81
1134	3.46	34.52	0.68	3.29	27.48	400	8.52	33.95	26.39	171	1.00
						500	6.55	33.89	26.63	149	1.16
						600	5.48	33.96	26.82	131	1.30
						700	4.91	34.07	26.97	117	1.42
						800	4.51	34.18	27.10	105	1.53
						1000	3.79	34.40	27.35	82	1.72

67

HUGH M. SMITH; March 2, 1954; 1744 GCT; 29°25'N, 142°56'W; sounding, 2300 fm; wind, 060°, 19 kt; weather, cloudy, precipitation within sight; sea, moderate; wire angle, 25°.

0	18.89	34.98a)	5.25	0.06	25.05	0	18.89	34.98	25.05	292	0.00
8	18.90	34.96	5.22	0.06	25.03	10	18.90	34.96	25.03	294	0.03
48	18.92	35.01	5.21	0.10	25.07	20	18.91	34.96	25.03	294	0.06
113	18.92	34.96	5.19	0.09	25.03	30	18.92	34.98	25.05	293	0.09
153	18.89	34.98a)	5.20	0.07	25.05	50	18.92	35.01	25.07	292	0.15
192	15.65	34.42	4.92	0.39	25.40	75	18.93	34.99	25.05	294	0.22
289	10.12	34.02	4.72	1.29	26.19	100	18.92	34.97	25.04	297	0.29
391	7.78	33.97	4.05	1.85	26.52	125	18.92	35.00	25.06	295	0.37
488	6.28	33.97a)	2.82	2.33	26.73	150	18.92	34.99	25.05	297	0.44
586	5.20	34.04	1.52	2.89	26.91	200	15.06	34.35	25.48	257	0.58
780	4.28	34.25	0.45	3.33	27.18	250	11.93	34.08	25.91	216	0.70
979	3.65	34.36	0.53	3.21	27.33	300	9.76	34.00	26.23	186	0.80
1172	3.22	34.42	0.97	3.28	27.42	400	7.62	33.97	26.54	157	0.97
						500	6.12	33.98	26.75	137	1.12
						600	5.10	34.06	26.94	119	1.24
						700	4.54	34.16	27.08	106	1.36
						800	4.21	34.26	27.20	95	1.46
						1000	3.60	34.37	27.35	82	1.63

68

HUGH M. SMITH; March 3, 1954; 0654 GCT; 31°02'N, 143°00'W; sounding, 2600 fm; wind, 040°, 10 kt; weather, cloudy; sea, slight; wire angle, 09°.

0	17.99	34.65	5.45	0.04	25.03	0	17.99	34.65	25.03	294	0.00
9	17.99	34.73	5.43	0.07	25.09	10	17.99	34.73	25.09	289	0.03
66	18.24	34.79	5.34	0.04	25.07	20	18.02	34.77	25.11	287	0.06
123	18.56	34.93	5.34	0.06	25.10	30	18.05	34.79	25.12	286	0.09
152	17.68	34.68	5.30	0.10	25.12	50	18.24	34.81	25.09	290	0.14
195	13.66	33.96	5.41	0.36	25.47	75	18.30	34.84	25.09	290	0.22
290	10.89	34.04	4.98	0.93	26.07	100	18.35	34.92	25.14	286	0.29
389	8.73	34.06a)	4.52	1.48	26.45	125	18.53	34.92	25.10	292	0.36
584	5.49	34.00	2.30	2.43	26.85	150	17.78	34.70	25.12	291	0.43
778	4.35	34.14	0.55	3.14	27.09	200	13.40	33.94	25.51	253	0.57
967	3.88	34.32	0.40	3.22	27.28	250	12.00	33.99	25.82	224	0.69
1161	3.29	34.46	0.81	3.12	27.45	300	10.65	34.06	26.13	196	0.79
						400	8.51	34.05	26.47	164	0.97
						500	6.68	33.96	26.66	146	1.13
						600	5.34	34.01	26.87	126	1.26
						700	4.63	34.09	27.02	112	1.38
						800	4.28	34.16	27.11	104	1.49
						1000	3.78	34.34	27.31	86	1.68

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
69	HUGH M. SMITH; March 3, 1954; 1915 GCT; 32°37'N, 143°04'W; sounding, 3000 fm; wind, 030°, 9 kt; weather, cloudy; sea, slight; wire angle, 09°.										
0	16.94	34.50a)	5.52	0.14	25.16	0	16.94	34.50	25.16	281	0.00
9	16.94	34.24	5.49	0.17	24.96	10	16.94	34.23	24.96	301	0.03
47	16.98	34.31	5.47	0.15	25.01	20	16.95	34.17	24.91	306	0.06
104	16.99	34.25	5.47	0.13	24.96	30	16.96	34.17	24.91	306	0.09
122	16.94	34.26	5.48	0.09	24.98	50	16.98	34.31	25.01	297	0.15
194	12.92	33.93	5.16	0.53	25.60	75	17.00	34.28	24.98	301	0.23
290	10.14	34.06	4.74	1.18	26.21	100	16.99	34.26	24.97	303	0.30
389	8.20	33.99	4.39	1.66	26.47	125	16.82	34.25	25.00	300	0.38
483	6.24	33.90	3.48	2.11	26.68	150	15.64	34.14	25.19	283	0.45
584	5.06	34.02	1.96	2.66	26.91	200	12.69	33.93	25.65	240	0.58
779	4.19	34.17	0.63	3.15	27.13	250	11.07	34.03	26.03	205	0.69
969	3.62	34.32	0.35	3.34	27.31	300	9.93	34.06	26.25	184	0.79
1161	3.22	34.41	0.59	3.39	27.42	400	7.95	33.98	26.50	161	0.96
						500	5.99	33.91	26.71	140	1.11
						600	4.95	34.03	26.93	119	1.24
						700	4.41	34.12	27.07	107	1.35
						800	4.12	34.19	27.15	99	1.46
						1000	3.56	34.34	27.33	83	1.64
70	HUGH M. SMITH; March 5, 1954; 0635 GCT; 34°02'N, 143°00'W; sounding, 3100 fm; wind, 310°, 5 kt; weather, cloudy; sea, slight; wire angle, 00°.										
0	16.42	34.14	5.65	0.18	25.01	0	16.42	34.14	25.01	296	0.00
9	16.36	34.15b)	5.62	0.20	25.03	10	16.36	34.15	25.03	294	0.03
63	16.16	34.09	5.62	0.14	25.03	20	16.33	34.15	25.04	294	0.06
97	15.77	34.04	5.63	0.17	25.08	30	16.30	34.14	25.04	294	0.09
135	15.34	33.99	5.64	0.16	25.14	50	16.22	34.12	25.04	294	0.15
198	11.27	33.73	5.44	0.69	25.76	75	16.03	34.07	25.05	295	0.22
295	9.52	33.96	4.75	1.26	26.24	100	15.76	34.04	25.08	292	0.29
396	7.70	33.95	4.26	1.66	26.51	125	15.53	34.01	25.11	290	0.37
492	6.03	33.93	3.03	2.20	26.73	150	14.46	33.92	25.28	275	0.44
593	5.08	34.03	1.62	2.86	26.92	200	11.21	33.73	25.77	228	0.56
788	4.24	34.25	0.47	3.24	27.19	250	9.99	33.90	26.12	196	0.67
980	3.75	34.38	0.38	3.28	27.34	300	9.43	33.96	26.26	183	0.76
1176	3.25	34.47	-	3.18	27.46	400	7.62	33.95	26.53	158	0.93
						500	5.93	33.94	26.75	137	1.08
						600	5.04	34.04	26.93	120	1.21
						700	4.52	34.15	27.08	106	1.32
						800	4.20	34.26	27.20	95	1.42
						1000	3.70	34.39	27.35	81	1.60
71	HUGH M. SMITH; March 4, 1954; 1822 GCT; 35°32'N, 143°00'W; sounding, 2600 fm; wind, 360°, 6 kt; weather, cloudy, precipitation within sight; sea, slight; wire angle, 06°.										
0	15.27	33.90	5.70	0.18	25.09	0	15.27	33.90	25.08	289	0.00
28	14.82	33.86	5.67	0.21	25.15	10	15.11	33.89	25.11	286	0.03
42	14.75	33.86	5.72	0.19	25.17	20	14.95	33.87	25.13	285	0.06
86	14.96	33.91	5.67	0.18	25.16	30	14.80	33.86	25.16	283	0.09
106	14.49	33.87	5.66	0.23	25.23	50	14.83	33.87	25.16	283	0.14
196	10.42	33.82	5.25	0.98	25.98	75	14.96	33.90	25.15	284	0.21
291	9.26	34.00	4.64	1.37	26.31	100	14.66	33.88	25.20	280	0.28
393	7.22	33.91	4.06	1.84	26.55	125	13.00	33.80	25.48	254	0.35
488	5.66	33.93	2.85	2.35	26.77	150	11.40	33.74	25.74	229	0.41
588	4.86	33.95	1.97	2.72	26.88	200	10.35	33.83	26.00	206	0.52
784	3.96	34.15	0.56	3.11	27.14	250	9.51	33.96	26.24	183	0.62
975	3.52	34.31	0.31	3.21	27.31	300	9.09	34.00	26.34	175	0.71
1170	3.18	34.42	0.54	3.24	27.43	400	7.09	33.91	26.57	153	0.87
						500	5.54	33.93	26.79	133	1.01
						600	4.79	33.96	26.90	123	1.14
						700	4.26	34.05	27.03	111	1.26
						800	3.91	34.16	27.15	99	1.36
						1000	3.48	34.32	27.32	84	1.55

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve. Value seems anomalous, but not positively out.

b) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; March 5, 1954; 2112 GCT; 37°05'N, 140°57'W; sounding, 2900 fm; wind, 060°, 14 kt; weather, cloudy; sea, very rough; wire angle, 08°. 72

0	14.79	33.74	5.89	0.25	25.07	0	14.79	33.74	25.07	290	0.00
9	14.78	33.77	5.75	0.25	25.09	10	14.78	33.77	25.09	288	0.03
52	14.80	33.75	5.80	0.21	25.07	20	14.79	33.78	25.10	288	0.06
76	14.39	33.74	5.74	0.22	25.15	30	14.79	33.78	25.10	288	0.09
96	13.96	33.70	5.84	0.24	25.21	50	14.80	33.75	25.07	291	0.14
209	10.15	33.94	4.99	1.11	26.12	75	14.39	33.74	25.15	284	0.22
314	8.24	33.96	4.41	1.54	26.44	100	13.83	33.70	25.24	277	0.29
422	6.10	33.93	3.08	2.43	26.72	125	11.20	33.78	25.81	222	0.35
528	5.11	33.95	2.07	2.68	26.85	150	11.00	33.80	25.86	218	0.40
631	4.42	34.03	1.10	3.01	26.99	200	10.46	33.91	26.04	202	0.51
835	3.74	34.23a)	0.48	3.22	27.22	250	9.32	33.96	26.27	180	0.60
						300	8.45	33.96	26.41	168	0.69
						400	6.50	33.94	26.67	143	0.85
						500	5.30	33.94	26.82	129	0.98
						600	4.60	34.00	26.95	117	1.11
						700	4.19	34.10	27.07	106	1.22
						800	3.86	34.20	27.19	96	1.32

HUGH M. SMITH; March 6, 1954; 0955 GCT; 38°30'N, 141°01'W; sounding, 2500 fm; wind, 110°, 12 kt; weather, missing; sea, rough; wire angle, 17°. 73

0	12.31	33.35	6.26	0.27	25.27	0	12.31	33.35	25.27	271	0.00
13	12.30	33.36	6.26	0.26	25.28	10	12.30	33.36	25.28	270	0.03
27	11.94	33.34	6.20	0.29	25.33	20	12.14	33.34	25.29	269	0.05
45	11.63	-	6.15	0.30		30	11.88	33.34	25.34	265	0.08
89	11.18	33.34	6.09	0.39	25.47	50	11.60	33.36	25.41	259	0.13
185	9.33	33.83	5.17	1.07	26.17	75	11.20	33.34	25.47	254	0.20
276	7.98	33.99	4.35	1.51	26.51	100	10.99	33.36	25.52	249	0.26
369	6.39	33.94	3.76	2.02	26.69	125	10.10	33.63	25.89	215	0.32
558	4.55	34.05	1.54	2.84	26.99	150	9.65	33.75	26.06	199	0.37
745	3.96	34.23	0.52	3.10	27.20	200	9.10	33.87	26.24	183	0.47
931	3.55	34.35	0.33	3.21	27.34	250	8.36	33.97	26.43	165	0.55
1123	3.10	34.43	0.37	3.23	27.44	300	7.56	33.98	26.56	153	0.63
						400	5.98	33.95	26.75	136	0.78
						500	4.95	34.00	26.91	120	0.90
						600	4.36	34.09	27.05	108	1.02
						700	4.04	34.19	27.16	98	1.12
						800	3.83	34.27	27.25	90	1.21
						1000	3.39	34.38	27.38	78	1.38

HUGH M. SMITH; March 7, 1954; 0806 GCT; 35°32'N, 141°01'W; sounding, 3100 fm; wind, 020°, 27 kt; weather, missing; sea, very rough; wire angle, 29°. 74

0	15.42	33.81	5.80	0.18	24.98	0	15.42	33.81	24.98	298	0.00
8	15.42	33.82	5.69	0.21	24.99	10	15.42	33.82	24.99	298	0.03
54	15.40	33.82	5.69	0.21	24.99	20	15.41	33.82	24.99	298	0.06
113	15.42	33.82	5.68	0.21	24.99	30	15.41	33.83	25.00	297	0.09
142	15.36	33.87	5.63	0.21	25.04	50	15.40	33.82	24.99	299	0.15
186	11.98	33.65	5.49	0.57	25.57	75	15.42	33.81	24.98	300	0.22
277	9.50	33.96	4.78	1.26	26.24	100	15.42	33.81	24.98	301	0.30
375	7.18	33.95	3.98	1.84	26.59	125	15.40	33.85	25.02	299	0.37
469	5.66	33.94	2.60	2.35	26.78	150	14.84	33.83	25.12	289	0.45
565	4.94	34.04	1.49	2.75	26.94	200	11.39	33.73	25.74	231	0.58
751	4.32	34.23	0.49	3.07	27.16	250	9.85	33.94	26.17	190	0.68
943	3.78	34.35	0.38	3.22	27.31	300	8.91	33.97	26.35	174	0.77
1132	3.41	34.45	0.61	3.18	27.43	400	6.70	33.94	26.65	146	0.93
						500	5.37	33.97	26.84	128	1.07
						600	4.78	34.08	26.99	113	1.19
						700	4.43	34.18	27.11	103	1.30
						800	4.17	34.26	27.20	95	1.40
						1000	3.67	34.38	27.35	82	1.58

a) Duplicate salinity titration values differ by more than 0.02‰ but less than 0.07‰; value tabulated is interpolated between the duplicates from the station curve.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
75	HUGH M. SMITH; March 7, 1954; 1925 GCT; 34°08'N, 140°57'W; sounding, 2900 fm; wind, 360°, 15 kt; weather, cloudy, precipitation within sight; sea, high; wire angle, 16°.										
0	16.26	34.13	5.51	0.16	25.04	0	16.26	34.13	25.04	293	0.00
9	16.25	34.14	5.50	0.22	25.05	10	16.25	34.14	25.05	292	0.03
50	16.18	34.14	5.53	0.19	25.06	20	16.23	34.14	25.05	292	0.06
86	16.11	34.13	5.47	0.18	25.07	30	16.22	34.14	25.06	292	0.09
112	15.79	34.09	5.45	0.20	25.12	50	16.18	34.14	25.06	292	0.15
200	10.86	33.84	5.12	0.88	25.92	75	16.15	34.14	25.07	292	0.22
300	8.76	34.02	4.50	1.46	26.41	100	16.05	34.11	25.07	293	0.29
406	6.51	33.96	3.57	2.06	26.69	125	15.16	34.05	25.22	279	0.36
506	5.50	34.02	2.11	2.42	26.86	150	13.00	33.92	25.58	246	0.43
608	4.62	34.08	1.30	2.87	27.01	200	10.86	33.84	25.92	214	0.54
807	3.83	34.28	0.52	3.17	27.25	250	10.10	33.91	26.10	197	0.65
1008	3.45	34.41	0.37	3.22	27.39	300	8.76	34.02	26.41	168	0.74
1204	3.08	34.51	0.62	3.18	27.51	400	6.62	33.96	26.67	143	0.89
						500	5.54	34.02	26.86	126	1.03
						600	4.68	34.08	27.00	112	1.15
						700	4.15	34.17	27.13	100	1.25
						800	3.84	34.27	27.24	90	1.35
						1000	3.46	34.41	27.39	77	1.52
						1200	3.09	34.51	27.51	67	1.66
76	HUGH M. SMITH; March 9, 1954; 0256 GCT; 29°54'N, 140°47'W; sounding, 2700 fm; wind, 330°, 21 kt; weather, partly cloudy; sea, high; wire angle, 14°.										
0	18.69	34.90	5.44	0.13	25.04	0	18.69	34.90	25.04	293	0.00
9	18.68	34.90	5.34	0.14	25.04	10	18.68	34.90	25.04	293	0.03
52	18.67	34.89	5.38	0.14	25.04	20	18.67	34.90	25.05	293	0.06
104	18.68	34.90	5.33	0.13	25.04	30	18.67	34.90	25.05	293	0.09
136	17.70	34.69	5.21	0.20	25.13	50	18.67	34.89	25.04	295	0.15
206	13.34	34.05	4.95	0.70	25.61	75	18.67	34.92	25.06	293	0.22
309	9.42	34.03	4.69	1.47	26.31	100	18.68	34.91	25.05	295	0.29
418	7.28	33.98	3.78	1.71	26.60	125	18.68	34.88	25.03	298	0.37
520	5.92	34.04	2.16	2.28	26.83	150	16.89	34.55	25.21	281	0.44
624	5.00	34.13	1.02	2.67	27.01	200	13.75	34.10	25.56	248	0.57
826	4.14	34.33	0.48	3.01	27.26	250	11.37	33.93	25.90	217	0.69
1030	3.61	34.46	0.64	2.99	27.42	300	9.67	34.01	26.26	183	0.79
1225	3.18	34.51	1.04	2.94	27.50	400	7.54	33.98	26.56	155	0.96
						500	6.14	34.02	26.78	134	1.10
						600	5.18	34.11	26.97	116	1.23
						700	4.59	34.21	27.12	103	1.34
						800	4.21	34.30	27.23	92	1.43
						1000	3.67	34.45	27.40	77	1.60
						1200	3.24	34.50	27.49	69	1.75
77	HUGH M. SMITH; March 9, 1954; 1827 GCT; 27°52'N, 140°55'W; sounding, 2500 fm; wind, 010°, 18 kt; weather, partly cloudy, distant precipitation; sea, moderate; wire angle, 15°.										
0	19.03	35.01	5.31	0.12	25.04	0	19.03	35.01	25.04	293	0.00
9	19.03	35.02	5.30	0.15	25.05	10	19.03	35.02	25.05	292	0.03
68	19.03	35.00	5.29	0.16	25.03	20	19.03	35.02	25.05	293	0.06
113	19.04	35.01	5.26	0.16	25.04	30	19.03	35.02	25.05	293	0.09
131	18.74	34.93	5.21	0.18	25.05	50	19.03	35.01	25.04	295	0.15
185	16.16	34.48	4.94	0.40	25.33	75	19.03	35.01	25.04	295	0.22
276	11.35	34.02	4.80	1.05	25.97	100	19.04	35.02	25.05	296	0.29
371	9.29	34.07	4.66	1.57	26.36	125	18.87	34.96	25.04	297	0.37
462	7.16	34.00	3.28	2.20	26.63	150	17.70	34.78	25.20	283	0.44
557	5.72	34.05	1.76	2.82	26.86	200	15.29	34.37	25.44	260	0.58
745	4.50	34.25	0.55	3.32	27.16	250	12.61	34.11	25.80	227	0.70
930	3.86	34.40	0.57	3.36	27.35	300	10.69	34.04	26.10	198	0.80
1123	3.55	34.49	0.97	3.36	27.45	400	8.58	34.05	26.46	165	0.99
						500	6.50	34.01	26.73	139	1.14
						600	5.32	34.09	26.94	119	1.27
						700	4.67	34.20	27.10	104	1.38
						800	4.26	34.30	27.22	93	1.48
						1000	3.75	34.43	27.38	79	1.65

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; March 10, 1954; 0508 GCT; 26°29'N, 141°03'W; sounding, 2600 fm; wind, 060°, 14 kt; weather, partly cloudy; sea, moderate; wire angle, 11°.											78
0	19.45	35.06	5.36	0.16	24.97	0	19.45	35.06	24.97	300	0.00
9	19.45	35.05	5.20	0.17	24.96	10	19.45	35.05	24.96	301	0.03
47	19.41	35.03	5.21	0.14	24.96	20	19.44	35.04	24.96	301	0.06
94	19.40	35.05	5.19	0.15	24.98	30	19.43	35.04	24.96	302	0.09
131	19.37	35.03	5.18	0.15	24.97	50	19.41	35.03	24.96	302	0.15
193	15.64	34.41	4.87	0.48	25.39	75	19.40	35.04	24.97	302	0.23
286	10.63	34.02	4.67	1.25	26.10	100	19.40	35.06	24.98	302	0.30
386	8.04	34.01	4.06	1.92	26.51	125	19.38	35.04	24.97	304	0.38
479	6.31	34.00	2.43	2.69	26.75	150	18.46	34.86	25.07	295	0.45
579	5.25	34.12	1.16	3.22	26.97	200	15.21	34.36	25.45	259	0.59
772	4.24	34.29	0.52	3.41	27.22	250	12.38	34.04	25.79	228	0.71
962	3.87	34.45	1.02	3.40	27.38	300	10.16	34.05	26.20	189	0.82
1156	3.48	34.52	1.26	3.39	27.48	400	7.74	34.00	26.55	156	0.99
						500	6.04	34.02	26.80	133	1.13
						600	5.09	34.14	27.01	113	1.26
						700	4.50	34.23	27.14	100	1.36
						800	4.17	34.32	27.25	90	1.46
						1000	3.79	34.46	27.40	77	1.63
HUGH M. SMITH; March 10, 1954; 1636 GCT; 24°58'N, 141°02'W; sounding, 2600 fm; wind, 080°, 18 kt; weather, partly cloudy; sea, moderate; wire angle, 18°.											79
0	19.77	35.16	5.14	0.14	24.96	0	19.77	35.16	24.96	300	0.00
9	19.76	35.14	5.16	0.14	24.95	10	19.76	35.14	24.95	302	0.03
67	19.84	35.17	5.16	0.17	24.95	20	19.76	35.13	24.94	303	0.06
112	20.04	35.25	5.13	0.16	24.96	30	19.76	35.13	24.94	303	0.09
138	18.81	34.99	4.98	0.27	25.08	50	19.79	35.14	24.94	304	0.15
184	17.12	34.68	4.88	0.41	25.26	75	19.98	35.21	24.95	304	0.23
274	11.26	34.02	4.76	1.16	25.99	100	20.00	35.26	24.98	302	0.30
368	8.76	34.04	4.24	1.76	26.43	125	20.00	35.13	24.88	313	0.38
460	7.34	34.11	2.16	2.67	26.69	150	18.38	34.90	25.12	290	0.46
555	5.98	34.11	1.37	3.12	26.87	200	16.08	34.54	25.39	265	0.59
741	4.73	34.31	0.53	3.42	27.18	250	12.82	34.10	25.75	232	0.72
925	4.24	34.45	0.87	3.44	27.35	300	10.33	34.02	26.15	194	0.82
1117	3.73	34.51	1.11	3.41	27.45	400	8.20	34.06	26.53	158	1.00
						500	6.73	34.11	26.78	135	1.15
						600	5.56	34.15	26.96	118	1.27
						700	4.89	34.26	27.12	102	1.38
						800	4.53	34.36	27.24	92	1.48
						1000	4.04	34.47	27.38	79	1.65
HUGH M. SMITH; March 11, 1954; 0613 GCT; 24°58'N, 143°04'W; sounding, 2400 fm; wind, 070°, 16 kt; weather, intermittent moderate drizzle; sea, moderate; wire angle, 17°.											80
0	20.64	35.25	5.20	0.22	24.80	0	20.64	35.25	24.80	316	0.00
9	20.63	35.23	5.10	0.23	24.79	10	20.63	35.23	24.79	317	0.03
45	20.50	35.25	5.11	0.14	24.84	20	20.61	35.23	24.79	317	0.06
81	20.21	35.23	5.10	0.15	24.90	30	20.57	35.23	24.80	316	0.10
139	19.04	34.97	4.98	0.21	25.01	50	20.47	35.25	24.85	313	0.16
199	17.80	34.78	4.76	0.30	25.17	75	20.28	35.24	24.89	310	0.24
300	11.18	34.09	4.50	1.17	26.05	100	19.88	35.16	24.93	306	0.31
404	8.20	34.05	3.69	1.99	26.52	125	19.36	35.04	24.98	303	0.39
505	6.54	34.08	1.92	2.77	26.78	150	18.89	34.94	25.02	300	0.46
606	5.74	34.18	0.88	3.46a)	26.96	200	17.74	34.77	25.18	286	0.61
805	4.52	34.36	0.75	3.35	27.24	250	13.40	34.24	25.74	233	0.74
1007	3.96	34.48	1.03	3.37	27.40	300	11.18	34.09	26.05	203	0.85
1204	3.50	34.52	1.31	3.33	27.48	400	8.27	34.04	26.50	161	1.03
						500	6.60	34.08	26.77	136	1.18
						600	5.77	34.17	26.95	119	1.31
						700	5.09	34.27	27.11	104	1.42
						800	4.54	34.36	27.24	92	1.52
						1000	3.97	34.48	27.40	78	1.69
						1200	3.51	34.52	27.48	71	1.84

a) Alternate value, 3.36 ml/L.

HBL

HMS-25

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
81	HUGH M. SMITH; March 11, 1954; 1952 GCT; 25°03'N, 145°03'W; sounding, 2700 fm; wind, 060°, 20 kt; weather, cloudy, precipitation within sight; sea, moderate; wire angle, 20°.										
0	20.80	35.39	5.11	0.11	24.86	0	20.80	35.39	24.86	310	0.00
9	20.79	35.41	5.14	0.10	24.88	10	20.79	35.41	24.88	308	0.03
73	20.80	35.38	5.08	0.09	24.86	20	20.79	35.41	24.88	309	0.06
124	20.80	35.38	5.08	0.10	24.86	30	20.79	35.42	24.89	308	0.09
156	20.69	35.35	5.08	0.13	24.86	50	20.79	35.41	24.88	310	0.15
203	17.92	34.81	4.85	0.31	25.17	75	20.80	35.38	24.86	313	0.23
304	11.69	34.14	4.62	1.08	26.00	100	20.81	35.38	24.85	314	0.31
412	8.49	34.04	4.05	1.87	26.47	125	20.81	35.38	24.85	315	0.39
514	6.69	34.05	2.45	2.64	26.73	150	20.77	35.37	24.86	316	0.47
617	5.18	34.08	1.34	3.19	26.95	200	18.14	34.85	25.14	290	0.62
819	4.26	34.34	0.67	3.40	27.26	250	14.40	34.34	25.61	245	0.75
1020	3.80	34.46	1.04	3.38	27.40	300	11.91	34.16	25.97	211	0.87
1215	3.37	34.50	1.30	3.34	27.47	400	8.72	34.03	26.42	169	1.06
						500	6.89	34.04	26.70	143	1.21
						600	5.39	34.07	26.91	122	1.35
						700	4.61	34.18	27.09	105	1.46
						800	4.28	34.31	27.23	92	1.56
						1000	3.84	34.45	27.39	79	1.73
						1200	3.40	34.50	27.47	71	1.88
82	HUGH M. SMITH; March 12, 1954; 0852 GCT; 25°03'N, 146°58'W; sounding, 2900 fm; wind, 110°, 20 kt; weather, cloudy; sea, moderate; wire angle, 25°.										
0	20.90	35.37	5.15	0.08	24.82	0	20.90	35.37	24.82	314	0.00
8	20.91	35.37	5.08	0.10	24.82	10	20.91	35.37	24.82	314	0.03
54	20.94	35.37	5.09	0.09	24.81	20	20.92	35.37	24.82	315	0.06
100	20.92	35.37	5.03	0.08	24.82	30	20.93	35.37	24.81	316	0.09
146	20.92	35.37	5.03	0.09	24.82	50	20.94	35.37	24.81	316	0.16
172	20.83	35.34	5.09	0.15	24.82	75	20.93	35.37	24.81	317	0.24
256	15.84	34.53	4.57	0.49	25.44	100	20.92	35.37	24.82	318	0.32
346	10.80	34.06	4.61	1.07	26.10	125	20.93	35.37	24.82	319	0.40
430	8.36	34.01	3.87	1.63	26.46	150	20.93	35.37	24.81	320	0.48
521	6.78	34.04	2.50	2.31	26.71	200	19.55	35.11	24.98	305	0.63
699	4.74	34.17	0.70	2.96	27.07	250	16.31	34.60	25.39	267	0.78
881	4.24	34.36	0.89	3.00	27.27	300	13.20	34.25	25.79	229	0.90
1069	3.84	34.47	1.15	2.97	27.40	400	9.05	34.00	26.35	176	1.10
						500	7.08	34.03	26.66	146	1.26
						600	5.69	34.09	26.89	124	1.40
						700	4.73	34.17	27.07	107	1.51
						800	4.36	34.28	27.20	96	1.62
						1000	3.99	34.43	27.36	82	1.79
83	HUGH M. SMITH; March 12, 1954; 2127 GCT; 26°26'N, 146°59'W; sounding, 2800 fm; wind, 100°, 20 kt; weather, partly cloudy; sea, moderate; wire angle, 23°.										
0	20.84	35.36	5.18	0.05	24.83	0	20.84	35.36	24.83	313	0.00
8	20.82	35.34	5.11	0.04	24.82	10	20.82	35.34	24.82	314	0.03
48	20.80	35.35	5.03	0.04	24.83	20	20.81	35.33	24.82	315	0.06
133	20.82	35.37	5.10	0.05	24.84	30	20.80	35.33	24.82	315	0.09
151	20.66	35.34	5.05	0.03	24.86	50	20.81	35.35	24.83	315	0.16
195	17.94	34.83	4.67	0.28	25.18	75	20.81	35.37	24.85	314	0.24
298	11.80	34.13	4.63	0.91	25.97	100	20.81	35.38	24.85	314	0.31
397	9.28	34.04	4.54	1.41	26.34	125	20.82	35.37	24.84	316	0.39
496	7.16	33.98	3.37	2.01	26.62	150	20.68	35.34	24.86	316	0.47
596	5.51	34.04	1.63	2.78	26.88	200	17.60	34.78	25.22	282	0.62
793	4.34	34.24	0.43	3.02	27.17	250	14.42	34.31	25.58	248	0.75
995	3.76	34.38	0.86	3.06	27.34	300	11.73	34.12	25.98	211	0.87
1188	3.36	34.48	1.30	2.95	27.46	400	9.21	34.04	26.35	176	1.06
						500	7.08	33.98	26.63	150	1.22
						600	5.47	34.04	26.88	125	1.36
						700	4.68	34.14	27.05	109	1.48
						800	4.31	34.25	27.18	97	1.58
						1000	3.75	34.38	27.34	83	1.76

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; March 13, 1954; 1009 GCT; 28°00'N, 146°58'W; sounding, 2600 fm; wind, 100°, 19 kt; weather, partly cloudy; sea, moderate; wire angle, 20°.											84
0	19.46	35.25	5.27	0.08	25.11	0	19.46	35.25	25.11	286	0.00
8	19.48	35.24	5.21	0.07	25.10	10	19.48	35.24	25.10	288	0.03
68	19.46	35.20	5.12	0.06	25.07	20	19.49	35.23	25.09	289	0.06
135	19.46	35.21	5.20	0.08	25.08	30	19.49	35.22	25.08	290	0.09
189	18.68	35.05	5.16	0.11	25.16	50	19.48	35.21	25.08	291	0.14
218	14.18	34.19	5.10	0.39	25.54	75	19.48	35.20	25.07	293	0.22
300	11.38	34.22	4.82	0.87	26.12	100	19.53	35.22	25.07	293	0.29
404	8.52	34.05	4.40	1.53	26.47	125	19.49	35.21	25.07	294	0.36
505	6.67	33.97	3.08	2.05	26.67	150	19.46	35.27	25.13	290	0.44
607	5.18	34.03	1.82	2.64	26.91	200	17.03	34.73	25.32	273	0.58
805	4.27	34.27	0.49	3.04	27.20	250	12.80	34.21	25.84	223	0.70
1007	3.70	34.40	0.66	3.07	27.36	300	11.38	34.22	26.12	197	0.81
1203	3.33	34.49	1.25	3.04	27.47	400	8.61	34.06	26.46	165	0.99
						500	6.75	33.97	26.66	146	1.14
						600	5.27	34.02	26.89	124	1.28
						700	4.57	34.14	27.06	108	1.39
						800	4.27	34.26	27.19	96	1.50
						1000	3.72	34.40	27.36	81	1.67
						1200	3.34	34.49	27.47	71	1.82
HUGH M. SMITH; March 13, 1954; 2207 GCT; 29°31'N, 146°59'W; sounding, 2800 fm; wind, 090°, 20 kt; weather, partly cloudy; sea, rough to very rough; wire angle, 20°.											85
0	18.76	35.02	5.31	0.09	25.12	0	18.76	35.02	25.12	286	0.00
9	18.74	34.99	5.33	0.08	25.10	10	18.74	34.99	25.10	288	0.03
50	18.70	34.99	5.23	0.09	25.11	20	18.73	34.98	25.09	288	0.06
101	18.60	34.99	5.31	0.07	25.13	30	18.72	34.98	25.10	289	0.09
151	16.74	34.60	5.11	0.23	25.29	50	18.70	34.99	25.11	288	0.14
201	12.66	34.16	5.13	0.64	25.83	75	18.65	35.02	25.14	286	0.22
301	10.42	34.14	4.87	1.09	26.23	100	18.61	34.99	25.13	288	0.29
407	8.26	34.04	4.42	1.54	26.50	125	18.55	34.97	25.13	288	0.36
508	6.16	33.96	3.28	2.14	26.73	150	16.80	34.61	25.28	275	0.43
609	5.02	34.05	1.56	2.70	26.94	200	12.74	34.17	25.82	224	0.55
808	4.17	34.26	0.48	3.05	27.20	250	11.40	34.08	26.01	207	0.66
1008	3.54	34.41	0.47	3.06	27.39	300	10.42	34.14	26.23	186	0.76
1202	3.15	34.48	0.91	3.00	27.48	400	8.40	34.05	26.49	162	0.93
						500	6.31	33.96	26.71	141	1.09
						600	5.09	34.04	26.93	120	1.22
						700	4.50	34.15	27.08	106	1.33
						800	4.18	34.25	27.19	96	1.43
						1000	3.56	34.40	27.38	79	1.60
						1200	3.15	34.48	27.48	70	1.75
HUGH M. SMITH; March 14, 1954; 1601 GCT; 28°00'N, 148°56'W; sounding, 2800 fm; wind, 140°, 21 kt; weather, intermittent slight drizzle; sea, rough; wire angle, 27°.											86
0	19.69	35.27	5.34	0.12	25.07	0	19.69	35.27	25.07	290	0.00
8	19.70	35.25	5.17	0.12	25.05	10	19.70	35.25	25.05	292	0.03
63	19.70	35.25	5.10	0.13	25.05	20	19.71	35.24	25.04	294	0.06
118	19.66	35.25	5.05	0.12	25.06	30	19.71	35.24	25.04	294	0.09
159	19.50	35.23	5.03	0.14	25.09	50	19.71	35.24	25.04	295	0.15
185	16.62	34.63	4.78	0.34	25.34	75	19.70	35.25	25.05	295	0.22
278	12.00	34.23	4.85	0.86	26.01	100	19.69	35.25	25.05	295	0.29
375	9.66	34.12	4.63	1.34	26.34	125	19.65	35.29	25.09	292	0.37
469	7.66	34.01	4.04	1.79	26.57	150	19.64	35.28	25.09	294	0.44
564	5.98	34.03	2.30	2.46	26.81	200	15.50	34.46	25.46	258	0.58
754	4.59	34.20	0.69	3.03	27.11	250	12.80	34.27	25.89	219	0.70
948	3.82	34.37	0.49	3.10	27.33	300	11.35	34.19	26.10	199	0.80
1139	3.36	34.47	0.87	3.07	27.45	400	9.10	34.08	26.40	171	0.99
						500	7.06	34.01	26.65	147	1.15
						600	5.59	34.06	26.88	125	1.28
						700	4.82	34.14	27.04	111	1.40
						800	4.36	34.24	27.17	99	1.50
						1000	3.69	34.40	27.36	80	1.68

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
87	HUGH M. SMITH; March 15, 1954; 0944 GCT; 26°21'N, 150°51'W; sounding, 2800 fm; wind, 140°, 7 kt; weather, cloudy; sea, slight; wire angle, 07°.										
0	21.24	35.39	5.07	0.11	24.74	0	21.24	35.39	24.74	321	0.00
9	21.21	35.38	5.16	0.11	24.74	10	21.21	35.38	24.74	321	0.03
47	21.16	35.39	5.08	0.14	24.77	20	21.19	35.38	24.75	321	0.06
94	20.97	35.37	5.01	0.12	24.80	30	21.18	35.38	24.75	321	0.10
122	20.59	35.33	5.02	0.12	24.88	50	21.16	35.39	24.77	321	0.16
193	17.76	34.83	4.71	0.34	25.22	75	21.09	35.38	24.78	321	0.24
287	12.70	34.29	4.65	0.85	25.92	100	20.91	35.37	24.82	318	0.32
386	9.54	34.12	4.51	1.39	26.36	125	20.51	35.31	24.88	312	0.40
481	7.55	34.05	3.43	1.91	26.61	150	19.68	35.16	24.99	303	0.48
581	5.96	34.05	2.22	2.48	26.83	200	17.37	34.78	25.28	277	0.62
769	4.29	34.21	0.57	3.10	27.15	250	14.00	34.40	25.74	233	0.74
966	3.70	34.38	0.63	3.13	27.35	300	12.19	34.25	25.99	210	0.85
1161	3.30	34.50	1.05	3.11	27.48	400	9.20	34.10	26.40	171	1.04
						500	7.21	34.04	26.66	147	1.20
						600	5.73	34.06	26.87	127	1.34
						700	4.74	34.14	27.05	110	1.46
						800	4.15	34.24	27.19	96	1.56
						1000	3.63	34.40	27.37	80	1.74
88	HUGH M. SMITH; March 16, 1954; 0403 GCT; 24°41'N, 152°55'W; sounding, 2900 fm; wind, 020°, 22 kt; weather, moderate rain; sea, moderate; wire angle, 40°.										
0	21.70	35.33	5.15	0.15	24.57	0	21.70	35.33	24.57	337	0.00
7	21.70	35.32	4.97	0.14	24.56	10	21.71	35.32	24.56	339	0.03
40	21.74	35.38	5.00	0.18	24.60	20	21.72	35.34	24.57	338	0.07
79	21.58	35.38	5.04	0.08	24.64	30	21.73	35.36	24.59	337	0.10
117	21.49	35.39	4.90	0.09	24.68	50	21.71	35.38	24.61	336	0.17
161	19.99	35.16	4.65	0.14	24.91	75	21.60	35.38	24.64	334	0.25
240	16.80	34.73	4.55	0.35	25.37	100	21.52	35.40	24.67	331	0.34
326	12.06	34.23	4.54	0.92	26.00	125	21.40	35.37	24.69	331	0.42
410	9.04	34.08	3.74	1.64	26.41	150	20.44	35.23	24.84	317	0.50
496	7.13	34.03	3.06	2.05	26.66	200	18.52	34.95	25.12	292	0.65
670	5.27	34.23	0.91	2.87	27.06	250	16.24	34.66	25.45	262	0.79
852	4.64	34.42	0.79	3.02	27.28	300	13.47	34.36	25.82	226	0.91
1036	4.00	34.48	1.05	3.09	27.39	400	9.33	34.09	26.37	174	1.11
						500	7.07	34.03	26.67	146	1.27
						600	5.78	34.13	26.91	122	1.41
						700	5.12	34.27	27.10	105	1.52
						800	4.75	34.37	27.23	94	1.62
						1000	4.13	34.47	27.37	81	1.79
89	HUGH M. SMITH; March 16, 1954; 2104 GCT; 23°02'N, 155°04'W; sounding, 2400 fm; wind, 190°, 10 kt; weather, partly cloudy; sea, slight; wire angle, 07°.										
0	21.76	35.35	5.21	0.13	24.57	0	21.76	35.35	24.57	338	0.00
9	22.00	35.34	5.03	0.10	24.50	10	22.00	35.34	24.50	345	0.03
46	22.00	35.35	4.81	0.04	24.50	20	22.00	35.34	24.50	345	0.07
92	21.67	35.40	4.85	0.03	24.63	30	22.00	35.34	24.50	346	0.10
138	20.88	35.29	4.74	0.08	24.77	50	21.99	35.36	24.51	345	0.17
191	18.67	34.97	4.62	0.18	25.10	75	21.84	35.39	24.58	340	0.26
283	13.74	34.33	4.43	0.60	25.74	100	21.59	35.39	24.65	334	0.34
381	9.48	34.12	3.60	1.71	26.37	125	21.30	35.34	24.69	331	0.43
474	7.78	34.12	2.35	2.25	26.64	150	20.46	35.23	24.83	318	0.51
572	6.08	34.13	1.51	2.71	26.88	200	18.20	34.90	25.16	288	0.66
765	4.82	34.34	0.68	3.02	27.19	250	15.54	34.54	25.52	255	0.79
955	4.24	34.47	0.98	3.18	27.36	300	12.87	34.27	25.87	221	0.91
1149	3.68	34.51	1.25	3.41	27.45	400	9.04	34.11	26.44	168	1.11
						500	7.29	34.12	26.71	142	1.26
						600	5.79	34.16	26.94	120	1.39
						700	5.05	34.26	27.10	104	1.51
						800	4.69	34.37	27.23	93	1.60
						1000	4.11	34.48	27.38	80	1.78

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m
HUGH M. SMITH; May 29, 1954; 1623 GCT; 20°33'N, 157°44'W; sounding, 2400 fm; wind, 070°, 9 kt; weather, cloudy; sea, moderate; wire angle, 25°.[a]										5
0	24.80	34.94		23.38	0	24.80	34.94	23.38	451	0.00
22	24.76	34.94		23.39	10	24.78	34.94	23.38	451	0.05
97	20.62	35.08		24.68	20	24.76	34.94	23.39	451	0.09
124	20.19	35.08		24.79	30	24.73	35.03	23.47	444	0.13
150	19.60	35.05		24.92	50	23.32	35.17	23.99	395	0.22
292	11.32	34.16		26.08	75	21.93	35.17	24.39	358	0.31
492	6.88	34.22		26.84	100	20.56	35.08	24.69	329	0.40
949	5.15	34.38		27.19	125	20.17	35.08	24.80	320	0.48
					150	19.60	35.05	24.92	309	0.56
					200	17.20	34.76	25.30	274	0.70
					250	14.40	34.45	25.70	237	0.83
					300	11.04	34.15	26.13	196	0.94
					400	8.26	34.20	26.63	149	1.11
					500	6.85	34.22	26.85	129	1.25
					600	6.47	34.26	26.93	122	1.38
					700	6.09	34.29	27.00	116	1.50
					800	5.71	34.33	27.08	109	1.61
HUGH M. SMITH; May 30, 1954; 1605 GCT; 19°45'N, 156°18'W; sounding, 2200 fm; wind, 290°, 11 kt; weather, partly cloudy; sea, slight; wire angle, 17°.										7
0	25.48	34.69	5.30	22.98	0	25.48	34.69	22.98	489	0.00
36	24.12	34.97	4.99b)	23.60	10	25.48	34.77	23.04	484	0.05
71	22.92	35.25	4.90	24.17	20	25.30	34.85	23.16	473	0.10
142	20.10	35.01	4.62	24.76	30	24.35	34.92	23.50	441	0.14
184	18.66	34.92	4.38	25.07	50	23.64	35.10	23.84	409	0.23
272	11.37	34.14	3.73	26.06	75	22.76	35.25	24.21	375	0.33
366	8.60	34.18	2.49	26.56	100	22.00	35.21	24.40	358	0.42
456	7.20	34.22	1.33	26.80	125	21.20	35.11	24.54	345	0.50
551	6.24	34.29	0.76	26.98	150	19.87	35.00	24.82	320	0.59
727	5.14	34.45	0.77	27.24	200	17.38	34.78	25.27	277	0.74
913	4.56	34.49	1.17	27.34	250	13.60	34.34	25.78	229	0.86
					300	10.20	34.10	26.24	186	0.97
					400	7.97	34.19	26.66	145	1.13
					500	6.71	34.25	26.89	125	1.27
					600	5.86	34.34	27.07	108	1.38
					700	5.26	34.43	27.21	95	1.48
					800	4.91	34.47	27.29	88	1.58
HUGH M. SMITH; June 2, 1954; 1610 GCT; 19°47'N, 157°23'W; sounding, 2400 fm; wind, 050°, 21 kt; weather, cloudy; sea, very rough; wire angle, 20°.										9
0	24.28	35.05	5.00	23.62	0	24.28	35.05	23.62	428	0.00
23	24.28	35.07	4.91	23.63	10	24.28	35.06	23.62	428	0.04
50	22.04	35.17	5.05	24.36	20	24.28	35.07	23.63	428	0.09
82	20.34	35.03	4.83	24.71	30	23.78	35.10	23.80	412	0.13
119	17.87	34.83	4.35	25.19	50	22.04	35.17	24.36	360	0.20
155	15.55	34.52	4.42	25.50	75	20.68	35.07	24.65	332	0.29
201	12.87	34.27	3.86	25.87	100	19.17	34.94	24.95	304	0.37
303	8.78	34.20	2.63	26.55	125	17.47	34.78	25.25	277	0.44
409	6.89	34.27	1.25	26.88	150	15.86	34.56	25.46	257	0.51
510	6.06	34.34	0.86	27.05	200	12.92	34.27	25.87	220	0.63
610	5.60	34.40	0.83	27.15	250	10.61	34.19	26.23	185	0.73
809	4.68	34.51	0.89	27.35	300	8.87	34.20	26.53	157	0.82
					400	6.98	34.26	26.86	126	0.96
					500	6.11	34.33	27.03	110	1.08
					600	5.64	34.39	27.14	101	1.18
					700	5.18	34.45	27.24	92	1.28
					800	4.72	34.50	27.34	83	1.37

a) Cruise 26 of RV Hugh M. Smith was primarily a skipjack scouting cruise and, therefore, hydrographic observations are designated by odd numbers.

b) Alternate value, 4.74 ml/L.

HBL

HMS-26

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
11	HUGH M. SMITH; June 3, 1954; 1556 GCT; 19°51'N, 158°43'W; sounding, 2200 fm; wind, 080°, 18 kt; weather, cloudy; sea, moderate; wire angle, 13°.									
0	25.17	34.76	4.80	23.13	0	25.17	34.76	23.13	475	0.00
10	25.17	34.76	4.83	23.13	10	25.17	34.76	23.13	475	0.05
24	24.98	34.81	4.83	23.23	20	25.05	34.79	23.19	470	0.09
54	24.20	35.07	4.88	23.66	30	24.85	34.86	23.30	460	0.14
108	22.66	35.30	4.89	24.28	50	24.32	35.03	23.59	433	0.23
161	20.57	35.26	4.72	24.83	75	23.65	35.19	23.91	404	0.34
215	17.74	34.79	4.45	25.19	100	22.91	35.28	24.19	377	0.43
323	10.22	34.18	3.18	26.29	125	22.06	35.32	24.46	352	0.52
437	7.66	34.31	1.25	26.80	150	21.06	35.30	24.73	328	0.61
546	6.41	34.31	0.95	26.98	200	18.59	34.94	25.10	294	0.76
654	5.69	34.42	0.71	27.15	250	15.60	34.53	25.50	257	0.90
864	4.74	34.47	0.77	27.31	300	11.72	34.26	26.09	200	1.02
1007	4.40	34.51	0.96	27.38	400	8.30	34.28	26.68	144	1.19
					500	6.83	34.31	26.92	122	1.32
					600	6.01	34.36	27.07	108	1.44
					700	5.43	34.44	27.20	96	1.54
					800	4.97	34.47	27.28	89	1.63
					1000	4.42	34.51	27.37	81	1.80
13	HUGH M. SMITH; June 4, 1954; 1545 GCT; 18°12'N, 158°51'W; sounding, 2600 fm; wind, 070°, 18 kt; weather, partly cloudy; sea, rough; wire angle, 25°.									
0	25.39	34.70	4.87	23.02	0	25.39	34.70	23.02	486	0.00
35	25.41	34.70	4.84	23.01	10	25.40	34.70	23.02	486	0.05
69	24.26	34.92	5.08	23.52	20	25.40	34.70	23.01	487	0.10
107	22.73	35.26	5.00	24.23	30	25.41	34.70	23.01	488	0.15
146	21.80	35.34	4.83	24.55	50	24.99	34.78	23.20	470	0.24
189	19.61	35.07	4.58	24.94	75	24.01	34.98	23.64	429	0.35
284	11.71	34.20	3.90	26.04	100	23.00	35.20	24.11	385	0.46
384	8.88	34.33	1.80	26.63	125	22.32	35.33	24.40	359	0.55
480	7.71	34.40	0.78	26.87	150	21.64	35.32	24.58	342	0.64
577	6.74	34.43	0.59	27.03	200	18.67	34.95	25.09	295	0.80
769	5.40	34.47	0.82	27.23	250	14.49	34.48	25.70	237	0.93
					300	11.01	34.19	26.16	193	1.04
					400	8.63	34.34	26.68	144	1.20
					500	7.49	34.41	26.90	124	1.34
					600	6.58	34.44	27.05	110	1.46
					700	5.88	34.46	27.16	101	1.56
15	HUGH M. SMITH; June 5, 1954; 1555 GCT; 16°16'N, 160°28'W; sounding, 3100 fm; wind, 080°, 15 kt; weather, partly cloudy; sea, moderate; wire angle, 33°.									
0	25.56	34.72	4.68	22.98	0	25.56	34.72	22.98	489	0.00
24	25.56	34.70	4.68	22.96	10	25.56	34.71	22.97	490	0.05
48	24.98	34.65	4.81	23.10	20	25.56	34.70	22.96	492	0.10
72	23.42	34.96	4.91	23.80	30	25.56	34.67	22.94	494	0.15
104	22.16	35.23	4.74	24.37	50	24.86	34.67	23.16	474	0.24
136	20.27	35.01	4.54	24.72	75	23.30	35.00	23.87	407	0.35
168	18.29	34.83	4.25	25.09	100	22.31	35.21	24.31	366	0.45
244	11.21	34.31	2.59	26.22	125	20.96	35.11	24.61	339	0.54
329	9.22	34.38	1.49	26.62	150	19.45	34.93	24.87	314	0.62
409	7.84	34.36	1.01	26.82	200	14.20	34.40	25.70	236	0.76
495	7.01	34.38	0.69	26.95	250	10.96	34.30	26.26	183	0.86
530	7.12	34.43	0.82	26.97	300	9.80	34.32	26.48	163	0.95
826	4.86	34.52	0.77	27.33	400	7.97	34.36	26.80	133	1.10
					500	7.02	34.39	26.96	118	1.22
					600	6.59	34.45	27.06	109	1.34
					700	5.82	34.48	27.19	98	1.44
					800	5.06	34.51	27.30	87	1.53

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; June 6, 1954; 1551 GCT; 14°56'N, 162°16'W; sounding, 3800 fm; wind, 080°, 19 kt; weather, partly cloudy, precipitation within sight; sea, moderate; wire angle, 20°.										17
0	26.51	34.52	4.66	22.53	0	26.51	34.52	22.53	532	0.00
52	26.49	34.51	4.66	22.53	10	26.51	34.52	22.53	532	0.05
89	24.76	34.99	4.79	23.43	20	26.50	34.52	22.54	533	0.11
127	23.88	35.23	4.73	23.87	30	26.50	34.51	22.53	534	0.16
164	22.72	35.25	4.60	24.22	50	26.49	34.51	22.53	534	0.27
206	18.56	34.88	4.16	25.06	75	25.45	34.80	23.07	483	0.39
311	10.00	34.22	2.98	26.36	100	24.47	35.08	23.58	436	0.51
418	7.96	34.34	1.14	26.78	125	23.92	35.22	23.85	411	0.61
522	6.87	34.43	0.64	27.01	150	23.31	35.27	24.07	391	0.71
625	6.00	34.47	0.62	27.16	200	19.23	34.94	24.94	310	0.89
828	4.90	34.45	0.82	27.27	250	13.20	34.40	25.91	217	1.02
1031	4.27	34.54	1.11	27.41	300	10.68	34.26	26.28	182	1.12
					400	8.20	34.29	26.71	141	1.28
					500	7.06	34.41	26.97	118	1.41
					600	6.19	34.46	27.12	103	1.52
					700	5.52	34.46	27.21	96	1.62
					800	5.01	34.45	27.26	91	1.72
					1000	4.37	34.53	27.40	79	1.89
HUGH M. SMITH; June 7, 1954; 1542 GCT; 13°54'N, 164°01'W; sounding, 2800 fm; wind, 080°, 21 kt; weather, partly cloudy; sea, very rough; wire angle, 26°.										19
0	27.03	34.54	4.70	22.38	0	27.03	34.54	22.38	546	0.00
36	27.04	34.60	4.77	22.43	10	27.03	34.56	22.40	545	0.05
72	24.56	34.99	5.09	23.49	20	27.04	34.57	22.40	545	0.11
112	23.04	35.32	4.73	24.18	30	27.04	34.59	22.42	544	0.16
153	20.86	35.16	4.48	24.67	50	25.90	34.74	22.89	500	0.27
198	16.71	34.69	4.04	25.36	75	24.43	35.02	23.55	438	0.39
298	10.49	34.47	1.00	26.47	100	23.46	35.25	24.01	395	0.49
401	8.88	34.60	0.49	26.84	125	22.47	35.31	24.34	364	0.58
502	7.66	34.60	1.06	27.03	150	21.06	35.18	24.63	337	0.67
603	6.88	34.52	0.85	27.08	200	16.54	34.68	25.40	265	0.82
802	5.53	34.56	1.16	27.29	250	12.00	34.44	26.17	191	0.94
1003	4.45	34.60	1.03	27.44	300	10.43	34.47	26.48	162	1.02
					400	8.88	34.60	26.84	129	1.17
					500	7.68	34.60	27.03	113	1.29
					600	6.90	34.52	27.08	109	1.40
					700	6.19	34.52	27.17	100	1.51
					800	5.54	34.56	27.28	90	1.60
					1000	4.47	34.60	27.44	75	1.77
HUGH M. SMITH; June 8, 1954; 1555 GCT; 12°35'N, 165°45'W; sounding, 2300 fm; wind, 070°, 12 kt; weather, cloudy; sea, moderate; wire angle, 25°.										21
0	27.11	34.60	4.70	22.40	0	27.11	34.60	22.40	544	0.00
35	27.12	34.52	4.74	22.34	10	27.11	34.58	22.39	546	0.05
71	27.12	34.65	4.68	22.44	20	27.12	34.55	22.36	549	0.11
115	23.38	35.08	4.85	23.90	30	27.12	34.53	22.35	551	0.16
159	15.79	34.54	3.62	25.46	50	27.12	34.55	22.36	550	0.27
212	11.36	34.65	0.54	26.46	75	26.94	34.70	22.53	535	0.41
269	10.56	34.69	0.29	26.63	100	25.10	34.97	23.31	462	0.53
365	9.46	34.69	0.44	26.82	125	21.67	34.98	24.31	367	0.64
454	8.76	34.65	0.55	26.90	150	17.35	34.67	25.20	283	0.72
548	7.91	34.61	0.72	27.00	200	11.98	34.59	26.29	179	0.83
734	6.50	34.60	0.81	27.19	250	10.80	34.68	26.58	152	0.92
919	5.28	34.63	1.11	27.37	300	10.17	34.70	26.71	141	0.99
					400	9.17	34.68	26.86	128	1.13
					500	8.35	34.63	26.95	120	1.25
					600	7.49	34.60	27.06	111	1.37
					700	6.74	34.60	27.16	102	1.47
					800	6.06	34.61	27.26	93	1.57

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
23	HUGH M. SMITH; June 9, 1954; 1615, 1655 GCT; 11°11'N, 167°26'W; sounding, 2400 fm; wind, 090°, 20 kt; weather, partly cloudy; sea, rough; wire angle, 34°, 27°.									
0	27.27	34.42	4.71	22.22	0	27.27	34.42	22.22	562	0.00
30	27.26	34.42	4.69	22.22	10	27.27	34.42	22.22	563	0.06
					20	27.26	34.42	22.22	563	0.11
64	27.27	34.51	4.67	22.28	30	27.26	34.42	22.22	563	0.17
106	24.72	34.58	4.44	23.13	50	27.26	34.47	22.26	560	0.28
154	12.32	34.52	1.10	26.17	75	27.11	34.54	22.36	552	0.42
221	10.65	34.72	0.46	26.64	100	25.41	34.58	22.92	499	0.55
282	9.75	34.70	0.53	26.78	125	19.86	34.56	24.48	350	0.66
477	8.37	34.61	0.72	26.93	150	13.37	34.52	25.97	209	0.73
575	7.41	34.58	0.50	27.05	200	11.15	34.65	26.50	159	0.82
774	5.88	34.58	0.62	27.26	250	10.17	34.72	26.72	138	0.89
962	4.92	34.56	0.40	27.36	300	9.59	34.69	26.80	132	0.96
					400	8.82	34.64	26.89	125	1.09
					500	8.15	34.60	26.96	120	1.21
					600	7.19	34.58	27.08	108	1.33
					700	6.39	34.58	27.19	99	1.43
					800	5.75	34.58	27.27	91	1.52
25	HUGH M. SMITH; June 10, 1954; 1548 GCT; 13°00'N, 168°13'W; sounding, 2900 fm; wind, 070°, 18 kt; weather, partly cloudy; sea, very rough; wire angle, 32°.									
0	27.14	34.58	4.62	22.38	0	27.14	34.58	22.38	547	0.00
43	27.14	34.58	4.67	22.38	10	27.14	34.58	22.38	547	0.05
88	24.28	34.70	4.71	23.35	20	27.14	34.58	22.38	548	0.11
132	19.84	34.76	4.47	24.64	30	27.14	34.58	22.38	548	0.16
175	14.78	34.47	3.02	25.63	50	27.14	34.60	22.39	547	0.27
219	12.20	34.45	1.85	26.14	75	25.34	34.66	23.00	490	0.40
265	10.72	34.61	0.74	26.54	100	23.19	34.74	23.70	424	0.52
357	9.64	34.63	0.42	26.74	125	20.63	34.76	24.43	355	0.62
445	8.78	34.63	0.52	26.88	150	17.61	34.64	25.11	291	0.70
532	7.70	34.58	0.51	27.01	200	13.08	34.43	25.95	211	0.82
704	6.31	34.52	0.77	27.15	250	11.10	34.55	26.43	167	0.92
877	5.10	34.54	0.88	27.32	300	10.15	34.64	26.66	145	0.99
					400	9.22	34.63	26.81	132	1.13
					500	8.10	34.60	26.97	119	1.26
					600	7.08	34.55	27.07	109	1.37
					700	6.34	34.52	27.15	102	1.48
					800	5.64	34.53	27.25	93	1.58
25A	HUGH M. SMITH; June 11, 1954; 0427 GCT; 14°33'N, 168°25'W; sounding, 900 fm; wind, 070°, 15 kt; weather, partly cloudy; sea, rough; wire angle, 22°.									
0	26.70	34.69	4.54	22.60	0	26.70	34.69	22.60	526	0.00
26	26.52	34.72	4.55	22.68	10	26.63	34.70	22.63	523	0.05
57	25.84	34.79	4.63	22.95	20	26.56	34.71	22.66	521	0.10
97	24.74	35.03	4.78	23.46	30	26.45	34.72	22.70	517	0.16
138	23.94	35.23	4.62	23.85	50	26.02	34.77	22.88	501	0.26
195	18.94	34.83	3.91	24.93	75	25.34	34.89	23.18	474	0.38
294	10.89	34.43	1.51	26.37	100	24.72	35.05	23.48	445	0.50
398	8.58	34.47	0.74	26.79	125	24.30	35.19	23.72	424	0.60
499	7.38	34.47	0.68	26.97	150	23.40	35.24	24.02	396	0.71
					200	18.46	34.80	25.02	301	0.88
					250	14.07	34.56	25.85	223	1.01
					300	10.66	34.43	26.41	169	1.11
					400	8.56	34.47	26.79	134	1.26

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m
HUGH M. SMITH; June 11, 1954; 1614 GCT; 16°01'N, 168°36'W; sounding, 1200 fm; wind, 070°, 15 kt; weather, partly cloudy; sea, very rough; wire angle, 14°.										27
0	26.54	34.43	4.80	22.46	0	26.54	34.43	22.46	539	0.00
43	26.56	34.45	4.71	22.47	10	26.54	34.44	22.46	539	0.05
82	25.38	34.87	4.84	23.15	20	26.55	34.44	22.46	540	0.11
136	23.70	35.17	4.63	23.88	30	26.55	34.44	22.46	540	0.16
188	19.11	34.88	4.18	24.92	50	26.39	34.52	22.57	530	0.27
256	14.30	34.47	3.60	25.73	75	25.63	34.79	23.01	489	0.40
318	10.65	34.27	2.96	26.29	100	25.00	35.02	23.38	455	0.51
431	7.48	34.27	1.21	26.80	125	24.17	35.15	23.72	423	0.62
538	6.52	34.27	0.97	26.93	150	22.80	35.18	24.15	384	0.73
644	5.72	34.45	1.19	27.17	200	18.18	34.80	25.09	294	0.89
852	4.80	34.65	1.03	27.44	250	14.68	34.50	25.68	240	1.03
					300	11.60	34.31	26.15	195	1.14
					400	8.02	34.25	26.70	142	1.30
					500	6.74	34.26	26.89	124	1.44
					600	6.03	34.37	27.07	108	1.55
					700	5.47	34.50	27.24	92	1.65
					800	5.03	34.60	27.38	80	1.74
HUGH M. SMITH; June 12, 1954; 1605 GCT; 17°55'N, 169°37'W; sounding, 2700 fm; wind, 080°, 16 kt; weather, partly cloudy; sea, rough; wire angle, 14°.										29
0	26.13	34.79	4.75	22.86	0	26.13	34.79	22.86	501	0.00
44	25.18	35.12	4.89	23.40	10	26.13	34.86	22.91	497	0.05
83	24.40	35.30	4.92	23.77	20	26.13	34.94	22.97	491	0.10
137	22.49	35.35	4.59	24.36	30	26.13	35.02	23.03	486	0.15
190	19.84	35.21	4.50	24.98	50	25.07	35.16	23.46	445	0.24
245	16.10	34.69	4.23	25.51	75	24.58	35.27	23.69	424	0.35
323	10.96	34.27	3.31	26.23	100	23.89	35.34	23.95	400	0.45
435	8.10	34.23	2.25	26.68	125	22.99	35.36	24.23	375	0.55
542	6.32	34.33	1.23	27.00	150	21.92	35.34	24.52	348	0.64
648	5.68	34.49	1.21	27.21	200	19.19	35.12	25.08	296	0.80
856	4.75	34.54	1.15	27.36	250	15.73	34.65	25.56	251	0.94
1063	3.98	34.58	1.21	27.48	300	12.33	34.36	26.05	204	1.05
					400	8.65	34.22	26.58	154	1.23
					500	6.90	34.28	26.89	125	1.37
					600	5.89	34.42	27.13	102	1.48
					700	5.42	34.52	27.27	90	1.58
					800	4.97	34.54	27.34	84	1.67
					1000	4.21	34.57	27.44	74	1.82
HUGH M. SMITH; June 13, 1954; 0438 GCT; 19°37'N, 169°50'W; sounding, 2600 fm; wind, 060°, 14 kt; weather, partly cloudy; sea, moderate; wire angle, 11°.										29A
0	26.23	34.85	4.45	22.87	0	26.23	34.85	22.87	500	0.00
14	26.20	34.90	4.28	22.92	10	26.21	34.89	22.90	497	0.05
39	25.46	35.17	4.61	23.35	20	26.06	34.96	23.01	487	0.10
84	24.49	35.19	4.72	23.66	30	25.77	35.07	23.18	472	0.15
136	22.54	35.41	4.52	24.40	50	25.23	35.20	23.44	448	0.24
185	20.33	35.23	4.19	24.87	75	24.69	35.20	23.61	432	0.35
295	12.88	34.42	4.04	25.99	100	23.96	35.27	23.88	408	0.45
395	8.95	34.23	3.36	26.54	125	23.01	35.37	24.23	374	0.55
491	6.48	34.56	2.76	27.16	150	21.96	35.38	24.54	346	0.64
					200	19.32	35.12	25.05	299	0.80
					250	15.94	34.75	25.59	248	0.94
					300	12.63	34.40	26.02	207	1.05
					400	8.82	34.25	26.58	154	1.23

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
31	HUGH M. SMITH; June 13, 1954; 1615 GCT; 19°59'N, 169°12'W; sounding, 2200 fm; wind, 090°, 3 kt; weather, partly cloudy; sea, moderate; wire angle, 02°.									
0	25.90	35.01	4.74	23.09	0	25.90	35.01	23.09	478	0.00
25	25.81	35.10	4.77	23.19	10	25.86	35.05	23.14	475	0.05
60	24.54	35.44	4.93	23.83	20	25.83	35.08	23.17	472	0.10
111	22.67	35.32	4.96	24.29	30	25.82	35.15	23.22	467	0.14
171	20.70	35.43	4.56	24.92	50	24.97	35.35	23.64	429	0.23
237	16.46	34.67	4.51	25.41	75	23.98	35.43	23.99	396	0.33
308	13.06	34.54	4.39	26.04	100	23.07	35.37	24.21	375	0.43
618	5.76	34.29	1.24	27.04	125	22.28	35.37	24.44	355	0.52
820	4.67	34.45	1.16	27.30	150	21.48	35.42	24.70	331	0.61
1014	4.06	34.58	1.40	27.47	200	18.91	35.12	25.15	289	0.76
					250	15.77	34.62	25.53	254	0.90
					300	13.40	34.54	25.97	212	1.02
					400	9.90	34.29	26.43	169	1.21
					500	7.41	34.22	26.77	137	1.36
					600	5.92	34.29	27.02	112	1.48
					700	5.12	34.34	27.16	99	1.59
					800	4.70	34.43	27.28	89	1.68
					1000	4.10	34.57	27.46	73	1.84
33	HUGH M. SMITH; June 14, 1954; 1605 GCT; 21°05'N, 168°16'W; sounding, 2400 fm; wind, 090°, 4 kt; weather, partly cloudy; sea, moderate; wire angle, 17°.									
0	25.31	35.17	4.55	23.40	0	25.31	35.17	23.40	450	0.00
23	25.24	35.23	4.64	23.46	10	25.28	35.20	23.43	447	0.04
46	24.56	35.26	4.45	23.69	20	25.25	35.22	23.45	445	0.09
91	22.96	35.30	4.71	24.19	30	25.07	35.24	23.52	439	0.13
138	21.27	35.35	4.52	24.71	50	24.43	35.26	23.73	420	0.22
187	19.76	35.21	4.52	25.00	75	23.55	35.29	24.01	394	0.32
281	14.36	34.45	4.23	25.71	100	22.63	35.32	24.30	367	0.42
378	10.24	34.27	2.95	26.36	125	21.73	35.34	24.57	342	0.50
470	7.90	34.25	1.71	26.72	150	20.93	35.33	24.78	323	0.59
567	6.38	34.29	1.26	26.96	200	19.07	35.11	25.11	293	0.74
757	5.10	34.40	1.00	27.21	250	16.25	34.66	25.45	262	0.88
946	4.48	34.54	1.14	27.39	300	13.43	34.38	25.85	224	1.00
					400	9.57	34.26	26.47	165	1.20
					500	7.35	34.26	26.81	133	1.35
					600	6.05	34.31	27.02	112	1.47
					700	5.33	34.36	27.15	101	1.58
					800	4.96	34.43	27.25	92	1.67
35	HUGH M. SMITH; June 15, 1954; 1608 GCT; 20°51'N, 166°48'W; sounding, 2200 fm; wind, 060°, 8 kt; weather, partly cloudy, precipitation within sight; sea, rough; wire angle, 16°.									
0	25.81	35.10	4.74	23.19	0	25.81	35.10	23.19	469	0.00
24	25.80	35.10	4.77	23.19	10	25.81	35.10	23.19	470	0.05
48	24.54	35.16	4.99	23.62	20	25.80	35.10	23.19	470	0.09
95	22.40	35.25	4.88	24.31	30	25.80	35.11	23.20	470	0.14
143	19.70	35.03	4.31	24.88	50	24.45	35.17	23.66	427	0.23
195	16.94	34.72	4.26	25.33	75	23.31	35.23	24.04	391	0.33
290	11.19	34.20	3.92	26.14	100	22.13	35.24	24.38	359	0.43
390	8.06	34.13	3.15	26.60	125	20.73	35.14	24.69	330	0.51
485	6.32	34.14	1.66	26.85	150	19.33	34.99	24.95	307	0.59
585	5.44	34.25	1.08	27.05	200	16.62	34.69	25.38	266	0.74
780	4.69	34.42	1.06	27.27	250	13.50	34.39	25.84	224	0.86
969	4.16	34.52	1.27	27.41	300	10.78	34.18	26.20	190	0.96
					400	7.83	34.13	26.64	148	1.13
					500	6.15	34.15	26.88	124	1.27
					600	5.36	34.26	27.07	107	1.38
					700	4.91	34.36	27.20	95	1.48
					800	4.63	34.43	27.29	88	1.57

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; June 16, 1954; 1600 GCT; 21°14'N, 164°11'W; sounding, 2600 fm; wind, 060°, 2 kt; weather, partly cloudy; sea, moderate; wire angle, 00°.										37
0	26.04	34.65	4.52	22.78	0	26.04	34.65	22.78	509	0.00
25	25.70	34.78	4.63	22.98	10	26.04	34.70	22.82	505	0.05
46	25.16	34.92	4.70	23.25	20	25.93	34.75	22.89	499	0.10
100	23.42	35.26	4.59	24.03	30	25.59	34.81	23.04	485	0.15
150	21.29	35.17	4.42	24.56	50	25.05	34.95	23.31	460	0.24
205	18.36	34.92	4.05	25.14	75	24.29	35.13	23.67	426	0.36
305	11.72	34.25	3.95	26.08	100	23.42	35.26	24.03	393	0.46
410	7.86	34.13	2.87	26.63	125	22.42	35.25	24.31	367	0.55
510	6.41	34.14	1.64	26.84	150	21.29	35.17	24.56	344	0.64
614	5.62	34.25	1.01	27.03	200	18.65	34.95	25.09	295	0.80
816	4.74	34.45	1.13	27.29	250	15.30	34.56	25.59	248	0.94
1010	4.14	34.54	1.16	27.43	300	12.04	34.28	26.04	205	1.05
					400	8.11	34.13	26.60	152	1.23
					500	6.49	34.13	26.82	130	1.37
					600	5.70	34.23	27.00	114	1.49
					700	5.18	34.34	27.15	100	1.60
					800	4.79	34.44	27.28	89	1.69
					1000	4.17	34.54	27.42	76	1.86
HUGH M. SMITH; June 17, 1954; 1607 GCT; 20°51'N, 161°59'W; sounding, 2600 fm; wind, calm; weather, partly cloudy; sea, moderate; wire angle, 07°.										39
0	25.89	34.81	4.63	22.95	0	25.89	34.81	22.95	493	0.00
24	25.68	34.81	4.78	23.01	10	25.88	34.81	22.95	493	0.05
49	25.07	34.87	4.90	23.24	20	25.80	34.81	22.97	491	0.10
98	23.86	35.19	4.82	23.85	30	25.55	34.82	23.06	483	0.15
148	22.67	35.30	4.81	24.28	50	25.05	34.88	23.26	465	0.24
203	19.68	35.07	4.26	24.92	75	24.43	35.04	23.56	436	0.35
300	13.03	34.27	3.89	25.84	100	23.83	35.20	23.86	409	0.46
404	8.88	34.16	2.90	26.50	125	23.30	35.28	24.08	389	0.56
502	6.82	34.13	1.72	26.78	150	22.58	35.30	24.30	369	0.65
605	5.87	34.25	1.07	27.00	200	19.87	35.09	24.88	315	0.83
804	4.88	34.42	0.99	27.25	250	16.40	34.67	25.42	264	0.97
997	4.22	34.51	1.12	27.40	300	13.03	34.27	25.84	224	1.09
					400	8.99	34.16	26.48	163	1.29
					500	6.85	34.13	26.78	135	1.44
					600	5.90	34.24	26.99	116	1.56
					700	5.31	34.34	27.14	102	1.67
					800	4.89	34.42	27.25	92	1.77
HUGH M. SMITH; June 18, 1954; 1628 GCT; 21°17'N, 160°01'W; sounding, 2500 fm; wind, 080°, 10 kt; weather, partly cloudy; sea, rough; wire angle, 27°.										41
0	25.60	34.88	4.77	23.09	0	25.60	34.88	23.09	479	0.00
21	24.12	35.14	5.03	23.73	10	25.60	35.00	23.18	471	0.05
42	23.00	35.26	5.10	24.15	20	24.19	35.13	23.70	421	0.09
84	21.96	35.26	4.89	24.45	30	23.59	35.20	23.93	399	0.13
126	20.92	35.28	4.78	24.75	50	22.74	35.27	24.23	372	0.21
172	19.08	34.99	4.43	25.01	75	22.12	35.27	24.41	356	0.30
257	13.77	34.36	3.91	25.76	100	21.60	35.28	24.56	342	0.39
345	10.22	34.16	3.40	26.28	125	20.95	35.28	24.74	326	0.47
430	8.20	34.18	2.14	26.62	150	20.05	35.15	24.88	313	0.55
517	6.66	34.22	1.30	26.87	200	17.37	34.77	25.27	278	0.70
690	5.02	34.38	0.72	27.20	250	14.22	34.41	25.70	237	0.83
859	4.37	34.49	0.93	27.36	300	11.82	34.22	26.04	205	0.94
					400	8.80	34.16	26.51	160	1.12
					500	6.92	34.21	26.83	130	1.27
					600	5.69	34.29	27.05	109	1.39
					700	4.98	34.39	27.22	94	1.49
					800	4.60	34.45	27.31	86	1.58

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
CHARLES H. GILBERT; September 19, 1954; 0245 GCT; 22°30'N, 159°58'W; wind, 070°, 16 kt; weather, partly cloudy; sea, rough; wire angle, 35°.											1
0	26.58	35.07	4.25	a)	22.93	0	26.58	35.07	22.93	495	0.00
21	26.58	35.08	3.97		22.93	10	26.58	35.08	22.93	494	0.05
41	25.98	35.12	3.69		23.15	20	26.58	35.08	22.93	495	0.10
81	22.66	35.25	3.89		24.24	30	26.45	35.10	22.99	490	0.15
122	20.96	35.30	3.85		24.75	50	25.28	35.15	23.39	452	0.24
162	19.67	35.21	2.21b)		25.03	75	23.20	35.23	24.07	388	0.35
248	14.21	34.45	3.02		25.74	100	21.74	35.29	24.53	345	0.44
329	10.42	34.20	3.91		26.28	125	20.87	35.30	24.78	322	0.52
419	8.57	34.13	3.98		26.53	150	20.08	35.25	24.95	307	0.60
497	6.94	34.09	4.35		26.73	200	17.39	34.89	25.36	269	0.75
682	5.17	34.27	0.98		27.10	250	14.10	34.44	25.75	232	0.87
868	4.58	34.43	1.62		27.29	300	11.59	34.25	26.10	199	0.98
1050	3.96	34.51	-		27.42	400	8.86	34.14	26.49	163	1.16
						500	6.89	34.09	26.74	139	1.31
						600	5.70	34.17	26.96	118	1.44
						700	5.09	34.29	27.12	103	1.55
						800	4.73	34.38	27.24	93	1.65
						1000	4.13	34.49	27.39	79	1.82
CHARLES H. GILBERT; September 19, 1954; 1806, 1844 GCT; 24°12'N, 159°59'W; wind, 090°, 16 kt; weather, partly cloudy; sea, slight; wire angle, 18°, 19°.											2
0	25.64	35.26	4.30	a)	23.36	0	25.64	35.26	23.36	453	0.00
19	25.64	35.26	4.38		23.36	10	25.64	35.26	23.36	453	0.05
55	23.68	35.41	4.96		24.07	20	25.64	35.26	23.36	454	0.09
137	19.82	35.19	4.53		24.97	30	25.64	35.30	23.39	451	0.14
182	18.20	35.01	4.23		25.25	50	25.60	35.39	23.47	444	0.23
						75	22.65	35.40	24.36	361	0.33
366	11.36	34.23	4.37		26.13	100	21.44	35.35	24.66	333	0.41
461	8.42	34.13	3.60		26.55	125	20.32	35.25	24.89	312	0.49
561	6.20	34.09	2.22		26.83	150	19.33	35.14	25.06	296	0.57
648	5.50	34.25	0.98		27.04	200	17.51	34.92	25.35	270	0.71
854	4.39	34.43	0.91		27.31	250	14.70	34.50	25.67	240	0.84
1050	3.78	34.52	1.14		27.45	300	12.90	34.32	25.91	218	0.95
						400	10.24	34.18	26.29	182	1.15
						500	7.41	34.10	26.67	145	1.32
						600	5.81	34.15	26.93	121	1.45
						700	5.16	34.31	27.13	102	1.56
						800	4.62	34.40	27.26	90	1.66
						1000	3.94	34.50	27.42	76	1.82
CHARLES H. GILBERT; September 20, 1954; 0736 GCT; 25°35'N, 159°52'W; wind, 040°, 8 kt; weather, partly cloudy; sea, slight; wire angle, 25°.											3
0	25.14	35.53	4.94	0.23	23.72	0	25.14	35.53	23.72	419	0.00
39	25.00	35.57	4.67	0.24	23.79	10	25.10	35.54	23.74	417	0.04
73	21.92	35.39	5.22	0.23	24.56	20	25.07	35.55	23.76	416	0.08
130	19.15	35.17	4.80	0.27	25.13	30	25.03	35.56	23.78	415	0.12
191	16.58	34.74	4.50	0.52	25.43	50	24.10	35.52	24.03	391	0.21
287	13.14	34.34	3.97	0.72	25.87	75	21.79	35.38	24.58	339	0.30
388	10.44	34.18	4.44	1.01	26.26	100	20.40	35.29	24.90	310	0.38
452	8.52	34.09	3.50	1.54	26.50	125	19.33	35.19	25.10	291	0.45
580	6.23	34.04	2.46	2.18	26.79	150	18.60	35.10	25.22	281	0.52
771	4.63	34.23	0.62	2.59	27.13	200	16.22	34.69	25.48	257	0.66
965	3.80	34.42	1.05	2.74	27.37	250	14.37	34.46	25.71	236	0.78
1149	3.29	34.51	1.22	2.81	27.49	300	12.78	34.31	25.92	217	0.90
						400	10.07	34.16	26.30	181	1.09
						500	7.48	34.05	26.62	150	1.26
						600	5.99	34.05	26.83	131	1.40
						700	5.05	34.14	27.01	113	1.52
						800	4.47	34.26	27.17	98	1.63
						1000	3.70	34.44	27.39	78	1.80

a) Because of malfunctioning colorimeter, phosphate samples could not be analyzed.

b) Value uncertain; used in interpolation.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m
4	CHARLES H. GILBERT; September 20, 1954; 2015 GCT; 27°00'N, 160°00'W; wind, 040°, 10 kt; weather, partly cloudy; sea, slight; wire angle, 15°.										
0	25.53	35.34	4.65	0.31	23.46	0	25.53	35.34	23.46	444	0.00
24	25.50	35.34	4.66	0.33	23.47	10	25.52	35.34	23.46	444	0.04
53	25.49	35.35	4.56	0.28	23.48	20	25.50	35.34	23.47	444	0.09
81	23.30	35.35	4.43	0.31	24.13	30	25.50	35.34	23.47	444	0.13
124	21.71	35.37	4.26	0.25	24.60	50	25.49	35.35	23.48	444	0.22
209	17.87	34.96	4.14	0.38	25.29	75	23.40	35.35	24.10	385	0.33
314	13.04	34.36	4.62	0.72	25.91	100	22.48	35.37	24.38	359	0.42
423	9.76	34.14	4.33	1.32	26.34	125	21.67	35.37	24.61	338	0.51
528	8.01	34.09	3.64	1.61	26.58	150	20.59	35.28	24.84	318	0.59
632	6.12	34.07	2.30	2.31	26.82	200	18.30	35.02	25.23	281	0.74
836	4.38	34.31	0.98	2.68	27.22	250	15.89	34.71	25.57	250	0.87
1041	3.68	34.43	1.08	2.53	27.39	300	13.64	34.43	25.84	225	0.99
1235	3.28	34.51	1.31	2.82	27.49	400	10.32	34.16	26.26	185	1.19
						500	8.42	34.09	26.52	161	1.37
						600	6.67	34.07	26.75	139	1.52
						700	5.34	34.14	26.98	117	1.65
						800	4.55	34.26	27.16	99	1.75
						1000	3.77	34.41	27.36	81	1.93
						1200	3.35	34.50	27.48	71	2.08
5	CHARLES H. GILBERT; September 21, 1954; 0937 GCT; 28°28'N, 159°59'W; wind, 100°, 10 kt; weather, missing; sea, slight; wire angle, 06°.										
0	25.04	35.55	4.77	0.22	23.77	0	25.04	35.55	23.77	414	0.00
25	24.98	35.52	4.84	0.21	23.76	10	25.02	35.54	23.76	415	0.04
54	22.76	35.30	5.06	0.21	24.25	20	24.99	35.53	23.77	415	0.08
109	18.08	34.92	5.12	0.24	25.21	30	24.95	35.51	23.76	416	0.12
163	15.59	34.58	4.92	0.39	25.54	50	23.14	35.34	24.17	378	0.20
217	13.46	34.43	4.65	0.68	25.88	75	19.40	35.06	24.98	301	0.29
326	10.99	34.22	4.80	0.99	26.19	100	18.50	34.98	25.15	286	0.36
546	6.53	34.05	3.29	1.87	26.76	125	17.21	34.81	25.34	269	0.43
654	5.22	34.09	1.83	2.51	26.95	150	16.08	34.65	25.48	256	0.50
866	4.07	34.31	0.91	2.68	27.25	200	14.08	34.46	25.77	229	0.62
1070	3.56	34.45	0.74	2.71	27.42	250	12.57	34.36	26.00	208	0.73
1268	3.06	34.54	1.13	2.88	27.53	300	11.46	34.26	26.14	196	0.83
						400	9.32	34.12	26.40	172	1.01
						500	7.33	34.06	26.65	147	1.17
						600	5.81	34.06	26.86	128	1.31
						700	4.86	34.13	27.02	112	1.43
						800	4.29	34.24	27.17	98	1.53
						1000	3.70	34.41	27.37	80	1.71
						1200	3.23	34.51	27.49	68	1.86
6	CHARLES H. GILBERT; September 21, 1954; 2100 GCT; 30°03'N, 159°49'W; wind, calm; weather, partly cloudy; sea, smooth; wire angle, 07°.										
0	24.82	35.57	4.46	0.02	23.85	0	24.82	35.57	23.85	407	0.00
24	24.47	35.57	4.51	0.01	23.95	10	24.67	35.57	23.89	403	0.04
54	22.00	35.17	4.97	0.09	24.37	20	24.53	35.57	23.93	399	0.08
107	17.26	34.74	5.36	0.13	25.27	30	24.45	35.57	23.96	397	0.12
162	15.21	34.52	4.72	0.35	25.57	50	22.40	35.23	24.30	365	0.20
213	13.60	34.40	4.42	0.59	25.83	75	19.20	34.92	24.93	306	0.28
323	11.12	34.22	4.31	0.83	26.17	100	17.40	34.78	25.27	274	0.35
543	6.58	34.02	3.38	1.52	26.73	125	16.41	34.65	25.40	262	0.42
653	5.00	34.07	1.81	2.21	26.96	150	15.52	34.55	25.53	251	0.48
862	3.86	34.25	0.95	2.03	27.23	200	13.65	34.43	25.84	222	0.60
1068	3.35	34.43	0.70	2.13	27.42	250	12.68	34.33	25.96	212	0.71
1267	3.07	34.40	0.92	1.99	27.42	300	11.58	34.25	26.11	199	0.81
						400	9.39	34.12	26.39	173	1.00
						500	7.37	34.04	26.63	149	1.16
						600	5.69	34.04	26.85	128	1.30
						700	4.61	34.11	27.04	110	1.42
						800	4.04	34.19	27.16	98	1.52
						1000	3.47	34.38	27.37	79	1.70
						1200	3.16	34.41	27.42	75	1.85

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CHARLES H. GILBERT; September 22, 1954; 1008 GCT; 31°29'N, 159°50'W; wind, calm; weather, clear; sea, smooth; wire angle, 05°. 7

0	24.38	34.85	4.71	0.01	23.44	0	24.38	34.85	23.44	446	0.00
15	24.12	34.87	4.41	0.07	23.53	10	24.21	34.86	23.49	441	0.04
30	19.60	34.61	5.36	0.13	24.59	20	24.00	34.87	23.56	434	0.09
65	15.89	34.52	5.76	0.16	25.42	30	19.60	34.61	24.59	337	0.13
133	14.04	34.43	4.65	0.61	25.76	50	16.78	34.51	25.21	278	0.19
204	13.00	34.38	4.55	0.68	25.93	75	15.37	34.50	25.52	249	0.25
302	11.36	34.29	4.39	0.88	26.18	100	14.44	34.46	25.70	233	0.31
507	7.81	34.05	3.82	1.49	26.58	125	14.05	34.44	25.76	228	0.37
611	5.98	34.04	2.98	1.88	26.82	150	13.76	34.42	25.81	224	0.43
816	4.12	34.16	1.02	2.20	27.13	200	13.05	34.38	25.92	214	0.54
1013	3.54	34.34	0.58	2.27	27.33	250	12.25	34.34	26.05	203	0.64
1214	3.05	34.43	0.86	2.56	27.45	300	11.39	34.29	26.17	192	0.74
						400	9.68	34.16	26.37	174	0.92
						500	7.93	34.06	26.57	156	1.09
						600	6.16	34.04	26.80	134	1.23
						700	4.95	34.08	26.97	117	1.36
						800	4.20	34.15	27.11	103	1.47
						1000	3.56	34.33	27.32	84	1.66
						1200	3.08	34.42	27.44	73	1.81

CHARLES H. GILBERT; September 22, 1954; 2143 GCT; 32°57'N, 159°55'W; wind, 300°, 6 kt; weather, partly cloudy; sea, smooth; wire angle, 00°. 8

0	23.64	34.74	4.45	0.22	23.57	0	23.64	34.74	23.57	433	0.00
20	24.18	35.10	4.26	0.14	23.68	10	23.91	34.92	23.63	428	0.04
40	18.85	34.58	5.18	0.20	24.76	20	24.18	35.10	23.68	423	0.09
78	15.62	34.49	5.24	0.21	25.46	30	24.10	35.09	23.70	422	0.13
142	13.48	34.40	4.70	0.60	25.85	50	17.00	34.54	25.18	281	0.20
202	12.30	34.34	4.61	0.81	26.04	75	15.68	34.48	25.44	257	0.27
300	10.99	34.25	4.44	0.95	26.21	100	14.60	34.45	25.65	237	0.33
506	7.26	34.04	3.60	1.69	26.65	125	13.80	34.42	25.80	224	0.38
610	5.54	33.98	2.58	2.14	26.83	150	13.29	34.39	25.88	217	0.44
814	4.08	34.16	0.79	2.31	27.13	200	12.33	34.34	26.03	203	0.54
1011	3.39	34.34	0.60	2.14	27.34	250	11.63	34.30	26.13	195	0.64
1211	2.99	34.45	0.24	2.71	27.47	300	10.99	34.25	26.21	188	0.74
						400	9.24	34.14	26.43	169	0.92
						500	7.37	34.04	26.63	149	1.08
						600	5.69	33.98	26.81	132	1.22
						700	4.69	34.04	26.97	116	1.34
						800	4.13	34.14	27.11	103	1.45
						1000	3.42	34.33	27.33	83	1.64
						1200	3.01	34.44	27.46	71	1.79

CHARLES H. GILBERT; September 23, 1954; 1018 GCT; 34°29'N, 160°08'W; wind, 240°, 18 kt; weather, clear; sea, moderate; wire angle, 31°. 9

0	23.60	34.69	4.31	0.28	23.55	0	23.60	34.69	23.55	435	0.00
20	23.60	34.69	4.49	0.22	23.55	10	23.60	34.69	23.55	436	0.04
43	21.20	34.58	5.58	0.20	24.14	20	23.60	34.69	23.55	436	0.09
76	14.80	34.42	6.12	0.24	25.59	30	23.60	34.69	23.55	436	0.13
137	12.72	34.36	5.11	0.59	25.97	50	19.83	34.54	24.48	348	0.21
194	11.92	34.31	5.24	0.71	26.09	75	14.75	34.42	25.60	242	0.28
293	10.26	34.18	5.42	0.88	26.29	100	13.60	34.38	25.81	222	0.34
396	8.95	34.14	4.76	1.17	26.47	125	12.80	34.36	25.96	209	0.39
495	7.33	34.05	4.02	1.68	26.65	150	12.49	34.35	26.01	204	0.45
594	5.48	34.02	2.80	2.09	26.86	200	11.82	34.30	26.10	197	0.55
789	4.06	34.20	0.98	2.52	27.17	250	10.98	34.23	26.20	188	0.64
986	3.31	34.36	0.45	2.46	27.37	300	10.17	34.18	26.30	179	0.74
1178	2.91	34.43	0.30	2.67	27.46	400	8.89	34.14	26.48	163	0.91
						500	7.23	34.05	26.66	147	1.06
						600	5.41	34.02	26.87	126	1.20
						700	4.48	34.10	27.04	109	1.31
						800	4.00	34.21	27.18	97	1.42
						1000	3.28	34.36	27.37	79	1.59

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
10	CHARLES H. GILBERT; September 24, 1954; 2206 GCT; 38°54'N, 160°07'W; wind, 060°, 10 kt; weather, intermittent slight rain; sea, slight; wire angle, 06°.										
0	22.22	34.14	5.45	0.21	23.52	0	22.22	34.14	23.52	437	0.00
14	22.22	34.16	5.28	0.20	23.54	10	22.22	34.15	23.53	437	0.04
29	18.23	34.14	6.80	0.16	24.58	20	22.22	34.15	23.53	437	0.09
54	12.50	34.23	5.67	0.57	25.91	30	17.96	34.14	24.64	332	0.13
104	11.44	34.20	5.65	0.70	26.09	50	12.90	34.21	25.82	220	0.18
155	10.82	34.22	5.42	0.86	26.22	75	11.80	34.23	26.05	199	0.23
214	10.16	34.18	4.04	0.92	26.30	100	11.50	34.21	26.09	195	0.28
320	8.94	34.14	3.09	1.15	26.48	125	11.15	34.21	26.15	190	0.33
430	7.22	34.04	3.09	1.60	26.65	150	10.87	34.22	26.21	185	0.38
539	5.54	34.02	2.96	2.03	26.86	200	10.31	34.19	26.29	179	0.47
642	4.65	34.09	1.76	2.31	27.02	250	9.77	34.17	26.36	172	0.56
851	3.81	34.23	0.73	2.49	27.22	300	9.19	34.15	26.44	165	0.64
1061	3.17	34.36	0.33	2.84	27.38	400	7.71	34.07	26.61	150	0.80
						500	6.10	34.02	26.79	133	0.94
						600	4.95	34.06	26.96	117	1.07
						700	4.34	34.13	27.08	106	1.18
						800	3.95	34.20	27.18	97	1.28
						1000	3.36	34.32	27.33	83	1.46
11	CHARLES H. GILBERT; September 26, 1954; 2356 GCT; 42°07'N, 159°59'W; wind, 340°, 15 kt; weather, partly cloudy; sea, slight; wire angle, 35°.										
0	19.00	33.75	5.50	0.27	24.09	0	19.00	33.75	24.09	384	0.00
16	18.95	33.75	5.16	0.27	24.10	10	18.97	33.75	24.09	383	0.04
29	18.82	33.78	5.24	0.28	24.16	20	18.90	33.76	24.12	381	0.08
57	11.87	33.78	6.74	0.57	25.69	30	18.85	33.78	24.15	379	0.11
89	9.85	33.89	6.25	0.84	26.13	50	12.10	33.78	25.64	237	0.18
129	8.92	33.93	6.05	0.98	26.31	75	10.28	33.84	26.02	201	0.23
177	8.70	34.04	5.68	1.07	26.43	100	9.47	33.90	26.20	184	0.28
267	7.70	34.00	5.24	1.15	26.55	125	8.96	33.93	26.31	175	0.32
363	6.28	34.00	4.36	1.55	26.75	150	8.78	33.98	26.38	169	0.37
452	5.18	34.07	2.72	2.13	26.94	200	8.50	34.04	26.47	161	0.45
729	3.84	34.20	0.88	2.53	27.19	250	7.93	34.02	26.54	155	0.53
922	3.27	34.33	0.55	2.86	27.35	300	7.22	33.99	26.61	148	0.60
						400	5.79	34.03	26.83	127	0.74
						500	4.81	34.10	27.01	111	0.86
						600	4.23	34.14	27.10	103	0.97
						700	3.89	34.19	27.18	96	1.07
						800	3.63	34.25	27.25	89	1.16
12	CHARLES H. GILBERT; September 27, 1954; 1331 GCT; 43°42'N, 160°00'W; wind, 100°, 14 kt; weather, clear; sea, slight; wire angle, 03°.										
0	19.17	33.95	5.34	0.39	24.20	0	19.17	33.95	24.20	373	0.00
20	19.18	33.98	5.37	0.42	24.22	10	19.17	33.96	24.20	373	0.04
41	18.01	33.89	5.78	0.42	24.44	20	19.18	33.98	24.22	372	0.07
69	10.45	33.86	6.23	0.89	26.01	30	19.15	33.98	24.22	372	0.11
102	8.87	33.80	6.16	1.02	26.22	50	12.40	33.88	25.66	235	0.17
155	8.59	34.00	6.05	1.07	26.42	75	9.83	33.84	26.10	194	0.23
236	8.01	34.04	5.46	1.34	26.54	100	8.90	33.80	26.22	183	0.27
354	6.38	34.02	4.05	1.89	26.75	125	8.85	33.95	26.34	172	0.32
466	5.03	34.00	2.60	2.27	26.90	150	8.56	33.98	26.41	165	0.36
586	4.33	34.09	1.51	2.60	27.05	200	8.31	34.04	26.49	158	0.44
696	3.89	34.22	0.97	2.62	27.20	250	7.84	34.04	26.56	152	0.52
926	3.28	34.34	0.56	2.79	27.35	300	7.17	34.04	26.66	143	0.59
1145	2.87	34.42	0.41	2.91	27.46	400	5.77	34.01	26.82	129	0.73
						500	4.78	34.02	26.95	117	0.85
						600	4.27	34.11	27.07	105	0.96
						700	3.88	34.22	27.20	94	1.06
						800	3.58	34.29	27.29	86	1.15
						1000	3.14	34.37	27.39	76	1.31

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CHARLES H. GILBERT; October 1, 1954; 1926 GCT; 45°03'N, 163°43'W; wind, 180°, 18 kt; weather, intermittent slight drizzle; sea, rough; wire angle, 35°. 13

0	15.53	33.06	6.11	0.69	24.38	0	15.53	33.06	24.38	355	0.00
12	15.51	33.12	6.38	0.77	24.43	10	15.51	33.11	24.43	352	0.04
25	15.51	33.08	6.68	0.75	24.40	20	15.51	33.09	24.41	353	0.07
41	8.69	33.37	7.04	1.07	25.91	30	13.59	33.29	24.97	300	0.10
79	6.80	33.40	6.72	1.20	26.21	50	7.80	33.38	26.05	197	0.15
134	6.39	33.57	6.29	1.18	26.40	75	6.90	33.39	26.19	185	0.20
202	6.33	33.86	5.45	1.34	26.63	100	6.46	33.45	26.29	175	0.25
302	5.38	33.87	3.73	1.99	26.76	125	6.35	33.54	26.38	167	0.29
399	4.69	33.98	2.35	2.20	26.92	150	6.37	33.64	26.45	160	0.33
501	4.27	34.05	1.68	2.51	27.03	200	6.33	33.85	26.62	145	0.41
600	3.90	34.13	1.05	2.60	27.13	250	5.92	33.89	26.71	138	0.48
806	3.40	34.27	0.68	2.41	27.29	300	5.40	33.87	26.76	133	0.54
						400	4.69	33.98	26.92	118	0.67
						500	4.27	34.05	27.03	109	0.78
						600	3.90	34.13	27.13	100	0.89
						700	3.66	34.20	27.21	93	0.98
						800	3.41	34.27	27.29	85	1.07

CHARLES H. GILBERT; October 4, 1954; 0531 GCT; 43°47'N, 169°43'W; wind, 330°, 3 kt; weather, cloudy; sea, moderate; wire angle, 18°. 14

0	14.04	33.33	6.05	0.50	24.91	0	14.04	33.33	24.91	305	0.00
19	14.00	33.33	6.20	0.52	24.92	10	14.02	33.33	24.91	305	0.03
33	9.52	33.66	6.08	0.75	26.01	20	14.00	33.34	24.93	304	0.06
53	8.64	33.71	5.20	0.81	26.19	30	10.51	33.59	25.79	223	0.09
80	7.79	33.75	3.86	0.96	26.34	50	8.56	33.72	26.21	183	0.13
140	7.67	33.89	3.17	0.99	26.47	75	7.91	33.74	26.32	172	0.17
204	6.62	33.89	2.99	1.24	26.62	100	7.78	33.80	26.39	167	0.21
307	5.48	33.93	2.56	1.82	26.79	125	7.80	33.86	26.43	163	0.26
415	4.67	34.02	2.38	2.10	26.96	150	7.53	33.89	26.49	157	0.30
518	4.28	34.11	1.70	2.31	27.07	200	6.70	33.89	26.61	147	0.37
623	3.90	34.18	1.13	2.38	27.17	250	6.05	33.90	26.70	138	0.44
822	3.35	34.31	0.71	2.54	27.32	300	5.54	33.93	26.79	131	0.51
1026	2.95	34.42	0.55	2.65	27.45	400	4.76	34.01	26.94	116	0.63
						500	4.33	34.10	27.06	106	0.75
						600	3.98	34.17	27.15	98	0.85
						700	3.66	34.23	27.23	90	0.94
						800	3.40	34.30	27.31	83	1.03
						1000	3.00	34.41	27.44	72	1.18

CHARLES H. GILBERT; October 4, 1954; 1834 GCT; 42°14'N, 169°53'W; wind, 140°, 13 kt; weather, intermittent slight drizzle; sea, slight; wire angle, 26°. 15

0	15.16	33.48	5.40	0.66	24.79	0	15.16	33.48	24.79	317	0.00
17	15.16	33.49	5.49	0.67	24.79	10	15.16	33.49	24.79	317	0.03
30	11.42	33.98	6.30	0.94	25.93	20	15.16	33.60	24.88	309	0.06
47	10.33	34.02	5.80	1.30	26.15	30	11.42	33.98	25.93	209	0.09
73	9.53	34.02	5.84	1.39	26.29	50	10.20	34.02	26.17	186	0.13
129	9.12	34.11	5.60	1.26	26.42	75	9.50	34.02	26.29	175	0.17
189	8.12	34.02	5.37	1.45	26.51	100	9.25	34.07	26.37	168	0.22
285	6.84	33.96	4.61	1.68	26.64	125	9.13	34.10	26.41	165	0.26
385	5.48	33.95	3.70	2.15	26.81	150	8.79	34.09	26.46	161	0.30
481	4.76	34.00	2.21	2.63	26.93	200	7.96	34.01	26.52	155	0.38
578	4.28	34.13	1.49	2.71	27.09	250	7.29	33.97	26.59	150	0.45
772	3.62	34.27	0.82	2.65	27.27	300	6.62	33.96	26.67	142	0.53
972	2.92	34.38	0.63	2.77	27.42	400	5.34	33.95	26.83	128	0.66
						500	4.65	34.02	26.96	115	0.78
						600	4.20	34.15	27.11	102	0.89
						700	3.84	34.23	27.21	92	0.99
						800	3.52	34.28	27.28	86	1.08

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
16	CHARLES H. GILBERT; October 5, 1954; 0726 GCT; 41°00'N, 169°47'W; wind, 210°, 22 kt; weather, missing; sea, moderate; wire angle, 26°.										
0	16.53	33.95	5.02a)	0.33	24.84	0	16.53	33.95	24.84	312	0.00
18	16.52	33.93	5.09	0.35	24.83	10	16.52	33.94	24.83	313	0.03
40	15.92	33.86	5.48	0.38	24.91	20	16.50	33.92	24.82	314	0.06
51	11.33	34.13	5.76	0.81	26.06	30	16.26	33.89	24.85	311	0.09
102	9.86	34.09	5.76	1.00	26.29	50	11.78	34.10	25.95	207	0.15
153	9.52	34.14	5.61	1.06	26.38	75	10.70	34.12	26.16	188	0.20
205	8.89	34.11	5.40	1.14	26.46	100	9.90	34.09	26.28	177	0.24
308	7.51	34.02	4.94	1.54	26.60	125	9.85	34.09	26.29	177	0.28
411	5.82	33.96	3.46	1.90	26.78	150	9.53	34.14	26.38	169	0.33
519	4.81	34.02	2.61	2.40	26.94	200	8.96	34.12	26.46	162	0.41
620	4.40	34.11	1.91	2.64	27.06	250	8.32	34.07	26.52	157	0.49
831	3.64	34.25	0.88	2.74	27.25	300	7.63	34.03	26.59	151	0.57
1048	3.08	34.38	0.57	2.95	27.41	400	5.99	33.96	26.75	135	0.71
						500	4.94	34.00	26.91	120	0.84
						600	4.46	34.09	27.04	109	0.95
						700	4.09	34.17	27.14	100	1.06
						800	3.74	34.23	27.22	92	1.15
						1000	3.20	34.35	27.37	79	1.32
17	CHARLES H. GILBERT; October 6, 1954; 0708 GCT; 38°41'N, 169°57'W; wind, 200°, 5 kt; weather, clear; sea, slight; wire angle, 12°.										
0	18.12	33.78	5.24	0.34	24.33	0	18.12	33.78	24.33	361	0.00
24	18.10	33.77	5.61	0.44	24.33	10	18.11	33.78	24.33	361	0.04
42	14.44	34.31	6.36	0.56	25.58	20	18.10	33.77	24.33	361	0.07
61	13.10	34.36	5.74	0.63	25.90	30	18.10	33.77	24.33	362	0.11
111	12.03	34.31	5.34	0.92	26.07	50	13.69	34.37	25.78	223	0.17
156	10.99	34.22	5.29	0.96	26.19	75	12.63	34.36	25.99	204	0.22
217	10.12	34.20	5.03	1.06	26.33	100	12.12	34.34	26.07	197	0.27
333	7.96	34.04	5.01	1.38	26.55	125	11.60	34.28	26.12	193	0.32
439	6.27	33.95	4.17	1.79	26.71	150	11.12	34.23	26.17	188	0.37
551	5.00	33.98	2.65	2.32	26.89	200	10.34	34.20	26.29	178	0.46
658	4.37	34.09	1.80	2.67	27.05	250	9.52	34.16	26.40	169	0.55
874	3.64	34.25	0.80	2.66	27.25	300	8.59	34.09	26.49	160	0.63
1095	3.05	34.36	0.58	2.73	27.39	400	6.85	33.97	26.65	146	0.78
						500	5.51	33.95	26.81	131	0.92
						600	4.67	34.03	26.97	116	1.04
						700	4.19	34.13	27.10	104	1.15
						800	3.84	34.20	27.19	95	1.25
						1000	3.30	34.31	27.33	83	1.43
18	CHARLES H. GILBERT; October 7, 1954; 0528 GCT; 37°07'N, 170°05'W; wind, calm; weather, fog; sea, smooth; wire angle, 03°.										
0	20.22	34.05	4.83	0.35	24.00	0	20.22	34.05	24.00	392	0.00
14	19.42	34.07	4.94	0.30	24.22	10	19.50	34.06	24.20	374	0.04
29	19.40	34.07	4.79	0.26	24.23	20	19.45	34.06	24.21	373	0.08
51	14.64	34.45	5.47	0.38	25.65	30	19.40	34.09	24.24	370	0.11
71	13.64	34.43	4.90	0.71	25.84	50	14.88	34.43	25.58	243	0.17
140	12.48	34.40	4.92	0.76	26.05	75	13.52	34.43	25.87	216	0.23
223	11.24	34.31	4.55	0.93	26.21	100	12.93	34.42	25.98	206	0.28
344	9.01	34.13	4.90	1.30	26.46	125	12.58	34.41	26.04	201	0.34
455	7.16	34.00	4.45	1.59	26.63	150	12.33	34.39	26.07	199	0.39
570	5.45	33.98	3.03	2.23	26.84	200	11.59	34.34	26.17	190	0.48
686	4.56	34.07	1.91	2.57	27.01	250	10.75	34.27	26.27	181	0.58
915	3.69	34.23	0.75	2.65	27.23	300	9.84	34.20	26.37	172	0.66
1139	3.03	34.36	0.41	2.83	27.39	400	8.05	34.06	26.55	156	0.83
						500	6.43	33.98	26.71	141	0.98
						600	5.17	34.00	26.89	124	1.11
						700	4.49	34.08	27.03	111	1.23
						800	4.04	34.15	27.13	101	1.33
						1000	3.44	34.28	27.29	86	1.52

a) Order of oxygen samples uncertain; present order assumed to be correct.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED			
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD	
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m	
CHARLES H. GILBERT; October 8, 1954; 0629 GCT; 34°07'N, 170°12'W; wind, 190°, 19 kt; weather, partly cloudy; sea, moderate; wire angle, 22°.												19
0	22.35	34.42	4.22	a)	23.70	0	22.35	34.42	23.70	421	0.00	
21	22.22	34.52	4.12		23.81	10	22.29	34.47	23.75	416	0.04	
43	18.76	34.69	4.79		24.86	20	22.23	34.52	23.81	411	0.08	
56	17.50	34.69	4.64		25.18	30	20.91	34.69	24.30	364	0.12	
84	16.04	34.67	4.41		25.50	50	18.02	34.70	25.06	293	0.19	
138	14.89	34.60	4.31		25.71	75	16.38	34.68	25.43	258	0.26	
219	13.42	34.47	4.15		25.92	100	15.58	34.65	25.59	243	0.32	
333	11.14	34.31	4.38		26.23	125	15.06	34.62	25.68	235	0.38	
434	9.09	34.13	4.57		26.44	150	14.67	34.58	25.74	231	0.44	
545	7.02	34.04	3.80		26.68	200	13.76	34.50	25.87	219	0.55	
646	5.27	34.00	2.86		26.87	250	12.81	34.43	26.01	207	0.66	
860	4.02	34.20	1.08		27.17	300	11.81	34.36	26.15	195	0.76	
1075	3.02	34.34	0.56		27.38	400	9.77	34.19	26.38	174	0.94	
						500	7.84	34.07	26.59	154	1.10	
						600	6.01	34.01	26.79	134	1.25	
						700	4.79	34.04	26.96	118	1.37	
						800	4.19	34.13	27.10	105	1.49	
						1000	3.37	34.29	27.31	85	1.68	
CHARLES H. GILBERT; October 8, 1954; 2000 GCT; 32°29'N, 170°17'W; wind, 220°, 8 kt; weather, partly cloudy; sea, smooth; wire angle, 20°.												20
0	23.17	34.78	3.99	a)	23.74	0	23.17	34.78	23.74	417	0.00	
18	22.94	34.81	4.05		23.83	10	23.04	34.80	23.79	412	0.04	
36	21.02	34.99	4.73		24.50	20	22.90	34.83	23.85	407	0.08	
55	18.68	34.85	5.06		25.01	30	22.88	34.84	23.87	406	0.12	
85	16.67	34.69	4.55		25.37	50	19.10	34.90	24.94	304	0.19	
146	15.13	34.58	4.08		25.64	75	17.18	34.74	25.29	271	0.27	
209	14.15	34.49	4.30		25.78	100	16.11	34.65	25.47	255	0.33	
320	12.37	34.38	4.40		26.06	125	15.43	34.60	25.59	244	0.39	
421	10.75	34.29	4.25		26.29	150	15.06	34.57	25.65	240	0.45	
522	8.30	34.11	3.83		26.55	200	14.27	34.50	25.76	230	0.57	
633	6.54	34.02	3.43		26.73	250	13.50	34.44	25.88	220	0.68	
846	4.33	34.13	1.23		27.08	300	12.69	34.40	26.01	208	0.79	
1061	3.04	34.29	0.54		27.34	400	11.12	34.31	26.24	188	0.99	
						500	8.83	34.15	26.50	163	1.17	
						600	6.99	34.04	26.69	145	1.32	
						700	5.71	34.03	26.84	130	1.46	
						800	4.70	34.09	27.01	114	1.58	
						1000	3.41	34.24	27.26	89	1.78	
CHARLES H. GILBERT; October 9, 1954; 0651 GCT; 31°12'N, 170°10'W; wind, 180°, 14 kt; weather, clear; sea, slight; wire angle, 05°.												21
0	23.78	34.81	4.47	a)	23.58	0	23.78	34.81	23.58	432	0.00	
14	23.38	34.85	4.66		23.73	10	23.49	34.84	23.69	422	0.04	
29	23.11	34.92	4.74		23.86	20	23.30	34.88	23.78	414	0.08	
52	17.97	34.78	5.48		25.13	30	23.05	34.92	23.88	405	0.13	
88	16.39	34.72	5.06		25.46	50	18.00	34.80	25.14	285	0.19	
140	15.30	34.61	4.73		25.62	75	16.70	34.73	25.40	261	0.26	
226	13.88	34.51	4.83		25.85	100	16.07	34.69	25.51	251	0.33	
346	11.86	34.34	5.00		26.12	125	15.53	34.64	25.60	244	0.39	
456	9.71	34.18	4.89		26.38	150	15.12	34.60	25.66	239	0.45	
577	7.18	34.02	3.75		26.64	200	14.29	34.54	25.79	227	0.57	
686	5.53	33.96	2.76		26.81	250	13.49	34.48	25.91	217	0.68	
913	3.98	34.18	0.83		27.16	300	12.66	34.41	26.02	207	0.78	
1136	3.03	34.36	0.38		27.39	400	10.83	34.26	26.25	187	0.98	
						500	8.76	34.12	26.49	164	1.15	
						600	6.78	34.00	26.68	145	1.31	
						700	5.39	33.97	26.84	130	1.45	
						800	4.56	34.04	26.99	116	1.57	
						1000	3.61	34.25	27.25	91	1.78	

a) Colorimeter inoperative; phosphate samples could not be analyzed.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
22	CHARLES H. GILBERT; October 9, 1954; 1651 GCT; 30°00'N, 170°10'W; wind, 090°, 8 kt; weather, partly cloudy; sea, smooth; wire angle, 34°.										
0	24.70	35.12	4.31	a)	23.54	0	24.70	35.12	23.54	435	0.00
16	24.40	35.07	4.23		23.60	10	24.51	35.09	23.58	433	0.04
27	24.76	35.41	4.45		23.74	20	24.65	35.20	23.62	429	0.09
40	22.00	35.23	4.86		24.41	30	24.76	35.39	23.73	419	0.13
67	19.87	35.23	4.74		24.99	50	20.88	35.23	24.72	325	0.20
111	18.13	34.97	4.46		25.24	75	19.47	35.19	25.06	293	0.28
183	15.53	34.65	4.56		25.60	100	18.46	35.05	25.21	280	0.35
280	13.80	34.49	4.81		25.85	125	17.57	34.90	25.32	270	0.42
370	11.50	34.29	4.32		26.15	150	16.63	34.78	25.45	258	0.49
466	10.19	34.23	4.28		26.34	200	15.18	34.61	25.65	241	0.61
557	7.57	34.07	3.63		26.63	250	14.27	34.53	25.79	229	0.73
764	4.85	34.09	1.66		26.99	300	13.27	34.44	25.92	217	0.84
974	3.03	34.29	0.44		27.34	400	11.11	34.27	26.21	191	1.04
						500	9.24	34.17	26.45	168	1.22
						600	6.78	34.04	26.71	142	1.38
						700	5.40	34.05	26.90	124	1.51
						800	4.54	34.12	27.05	110	1.63
23	CHARLES H. GILBERT; October 10, 1954; 0548 GCT; 29°45'N, 172°05'W; wind, 110°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 14°.										
0	24.99	35.16	4.07	a)	23.49	0	24.99	35.16	23.49	441	0.00
14	24.75	35.12	4.08		23.53	10	24.82	35.13	23.51	439	0.04
28	24.36	35.07	4.42		23.61	20	24.72	35.10	23.52	438	0.09
39	22.59	35.03	4.56		24.09	30	24.10	35.06	23.68	424	0.13
57	18.81	34.92	5.23		25.03	50	19.50	34.96	24.88	310	0.20
106	16.34	34.72	4.92		25.47	75	17.19	34.84	25.36	264	0.28
224	13.81	34.45	4.57		25.82	100	16.31	34.74	25.50	253	0.34
339	11.34	34.31	4.59		26.20	125	15.77	34.66	25.56	247	0.40
447	9.12	34.18	4.38		26.48	150	15.11	34.59	25.65	239	0.46
563	6.73	34.05	3.41		26.73	200	14.13	34.49	25.78	228	0.58
671	5.23	34.07	2.15		26.93	250	13.25	34.41	25.90	217	0.69
895	3.88	34.27	0.64		27.24	300	12.17	34.35	26.07	202	0.80
1113	3.25	34.45	0.58		27.45	400	10.08	34.24	26.37	175	0.99
						500	7.98	34.11	26.60	153	1.15
						600	6.15	34.05	26.81	133	1.29
						700	4.97	34.09	26.98	116	1.42
						800	4.26	34.17	27.12	103	1.53
						1000	3.58	34.36	27.34	82	1.71
24	CHARLES H. GILBERT; October 10, 1954; 1824 GCT; 29°17'N, 173°54'W; wind, 090°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 20°.										
0	24.86	35.17	3.76	a)	23.53	0	24.86	35.17	23.53	436	0.00
14	24.85	35.17	3.82		23.54	10	24.85	35.17	23.54	437	0.04
31	23.62	35.08	4.58		23.83	20	24.85	35.17	23.54	437	0.09
57	19.24	34.88	5.52		24.89	30	23.73	35.09	23.81	411	0.13
104	16.59	34.76	4.74		25.45	50	19.60	34.92	24.82	315	0.20
151	15.28	34.61	4.82		25.63	75	17.75	34.82	25.21	279	0.28
215	13.98	34.49	4.77		25.82	100	16.66	34.76	25.43	259	0.34
330	11.64	34.33	4.69		26.16	125	15.90	34.69	25.55	248	0.41
433	9.78	34.18	4.42		26.37	150	15.30	34.61	25.62	242	0.47
537	7.22	34.05	3.64		26.66	200	14.26	34.51	25.77	229	0.59
650	5.60	34.05	2.53		26.87	250	13.25	34.44	25.93	215	0.70
867	4.00	34.43	0.76		27.35	300	12.24	34.37	26.07	202	0.80
1083	3.30	34.40	0.63		27.40	400	10.40	34.23	26.30	181	0.99
						500	8.11	34.09	26.56	157	1.16
						600	6.21	34.03	26.78	135	1.31
						700	5.10	34.13	27.00	115	1.43
						800	4.34	34.31	27.22	93	1.54
						1000	3.57	34.41	27.38	78	1.71

a) Colorimeter inoperative; phosphate samples could not be analyzed.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
CHARLES H. GILBERT; October 15, 1954; 0850 GCT; 28°48'N, 178°18'W; wind, 090°, 10 kt; weather, cloudy; sea, slight; wire angle, 15°.											25
0	25.32	35.16	5.05	0.21	23.39	0	25.32	35.16	23.39	451	0.00
19	25.34	35.16	5.06	0.23	23.38	10	25.33	35.16	23.38	451	0.05
38	23.40	35.05	5.30	0.15	23.88	20	25.34	35.16	23.38	452	0.09
57	21.22	34.87	5.53	0.14	24.35	30	24.35	35.11	23.64	427	0.13
86	17.81	34.72	5.44	0.22	25.12	50	22.04	34.94	24.18	377	0.21
134	16.20	34.67	4.12a)	0.43	25.47	75	19.00	34.76	24.86	313	0.30
219	14.71	34.52	4.81	0.62	25.68	100	17.05	34.69	25.28	273	0.37
333	12.46	34.38	4.95	1.22	26.04	125	16.29	34.67	25.45	258	0.44
436	10.71	34.20	4.77	1.35	26.22	150	15.86	34.64	25.52	252	0.50
550	8.30	34.07	4.23	1.83	26.52	200	14.97	34.56	25.66	240	0.63
655	5.99	34.00	3.25	2.51	26.79	250	14.10	34.48	25.78	229	0.74
872	4.08	34.18	1.09	2.93	27.15	300	13.11	34.42	25.94	215	0.86
1091	3.33	34.36	0.55	3.27	27.37	400	11.33	34.26	26.16	196	1.06
						500	9.39	34.12	26.39	175	1.25
						600	7.15	34.03	26.66	148	1.41
						700	5.39	34.02	26.88	127	1.54
						800	4.44	34.10	27.05	110	1.66
						1000	3.64	34.28	27.27	89	1.86
CHARLES H. GILBERT; October 16, 1954; 0120 GCT; 29°51'N, 179°45'E; wind, 150°, 5 kt; weather, partly cloudy; sea, smooth; wire angle, 02°.											26
0	25.08	34.99	4.72	0.13	23.33	0	25.08	34.99	23.33	456	0.00
15	24.70	34.99	4.83	0.15	23.45	10	24.83	34.99	23.41	449	0.05
29	24.46	34.99	4.86	0.01	23.52	20	24.60	34.98	23.47	443	0.09
44	20.25	34.79	5.71	0.09	24.56	30	24.23	34.98	23.58	433	0.13
138	16.08	34.67	4.87	0.27	25.49	50	19.37	34.75	24.75	322	0.21
226	14.82	34.54	5.05	0.64	25.68	75	17.30	34.71	25.24	276	0.28
346	12.90	34.43	4.89	0.75	25.99	100	16.50	34.70	25.42	260	0.35
455	10.76	34.29	4.69	0.91	26.29	125	16.20	34.68	25.47	255	0.42
574	7.74	34.05	4.23	1.84	26.59	150	15.84	34.65	25.53	250	0.48
684	5.67	34.04	2.85	2.43	26.86	200	15.07	34.58	25.65	240	0.60
911	4.05	34.15	0.93	2.77	27.14	250	14.46	34.52	25.74	234	0.72
1134	3.34	34.38	0.78	3.14	27.38	300	13.68	34.47	25.86	223	0.83
						400	11.90	34.37	26.14	198	1.04
						500	9.61	34.19	26.41	173	1.23
						600	7.18	34.04	26.66	148	1.39
						700	5.48	34.04	26.88	126	1.53
						800	4.56	34.08	27.02	113	1.65
						1000	3.77	34.25	27.24	93	1.85
CHARLES H. GILBERT; October 16, 1954; 1420 GCT; 31°30'N, 179°37'E; wind, 180°, 4 kt; weather, partly cloudy; sea, smooth; wire angle, 07°.											27
0	24.00	34.83	4.83	0.01	23.53	0	24.00	34.83	23.53	436	0.00
20	23.58	34.78	4.82	0.00	23.62	10	24.00	34.83	23.53	437	0.04
40	20.58	34.70	5.44	0.09	24.40	20	23.58	34.78	23.62	429	0.09
65	18.78	34.70	5.49	0.06	24.87	30	23.00	34.74	23.76	416	0.13
112	16.60	34.76	4.78	-	25.44	50	19.70	34.69	24.62	334	0.20
161	16.05	34.70	4.72	0.35	25.52	75	18.18	34.71	25.02	297	0.28
226	15.31	34.63	4.69	0.53	25.64	100	16.80	34.76	25.40	262	0.35
345	13.38	34.45	4.79	0.89	25.91	125	16.37	34.75	25.49	254	0.42
450	11.36	34.34	4.37	1.04	26.22	150	16.10	34.72	25.53	251	0.48
571	8.54	34.09	3.52	1.65	26.50	200	15.62	34.66	25.59	246	0.61
678	5.81	33.98	1.29	2.37	26.79	250	14.97	34.59	25.68	239	0.73
903	4.08	34.18	0.72	3.13	27.15	300	14.18	34.52	25.80	229	0.84
1126	3.34	34.31	-	3.37	27.33	400	12.37	34.40	26.07	205	1.06
						500	10.24	34.24	26.34	180	1.25
						600	7.75	34.05	26.59	156	1.42
						700	5.50	34.00	26.85	129	1.56
						800	4.70	34.09	27.01	114	1.68
						1000	3.76	34.24	27.23	93	1.89

a) Value uncertain; used in interpolation.

HBL

CHG-17

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
28	CHARLES H. GILBERT; October 17, 1954; 0214 GCT; 32°59'N, 179°58'E; wind, 080°, 22 kt; weather, partly cloudy; sea, slight; wire angle, 26°.										
0	23.20	34.47	4.96	0.16	23.50	0	23.20	34.47	23.50	440	0.00
13	23.20	34.47	4.97	0.08	23.50	10	23.20	34.47	23.50	440	0.04
25	22.56	34.45	4.91	0.20	23.66	20	23.15	34.47	23.51	439	0.09
53	19.44	34.67	5.20	0.18	24.68	30	22.04	34.48	23.83	409	0.13
86	17.50	34.72	4.82	0.45	25.20	50	19.80	34.64	24.56	340	0.21
133	15.90	34.63	4.74	0.61	25.50	75	18.00	34.72	25.08	292	0.28
197	13.86	34.51	4.95	0.77	25.86	100	16.95	34.70	25.31	270	0.35
301	11.85	34.38	4.99	1.02	26.16	125	16.12	34.65	25.47	256	0.42
396	9.81	34.22	5.08	1.42	26.40	150	15.32	34.60	25.61	243	0.48
501	7.41	34.07	4.37	2.02	26.65	200	13.79	34.51	25.87	219	0.60
596	5.64	34.00	3.42	2.41	26.83	250	12.75	34.44	26.03	205	0.70
797	4.17	34.16	1.47	2.87	27.12	300	11.87	34.38	26.15	194	0.80
1008	3.34	34.34	0.74	3.01	27.35	400	9.72	34.21	26.40	171	0.99
						500	7.43	34.07	26.65	148	1.15
						600	5.59	34.00	26.84	129	1.29
						700	4.80	34.08	26.99	115	1.41
						800	4.16	34.16	27.12	102	1.52
						1000	3.37	34.33	27.34	82	1.70
29	CHARLES H. GILBERT; October 17, 1954; 1426 GCT; 34°30'N, 179°52'E; wind, 120°, 18 kt; weather, partly cloudy; sea, slight; wire angle, 33°.										
0	22.06	34.22	4.97	0.13	23.63	0	22.06	34.22	23.63	427	0.00
15	22.04	34.29	5.08	0.22	23.69	10	22.05	34.27	23.67	424	0.04
31	19.88	34.34	5.91	0.18	24.31	20	22.03	34.32	23.71	420	0.08
47	15.84	34.25	6.74	0.27	25.23	30	20.07	34.36	24.28	367	0.12
78	13.53	34.45	5.31	0.82	25.88	50	15.43	34.26	25.33	267	0.19
123	12.49	34.34	5.19	0.95	26.00	75	13.57	34.42	25.85	218	0.25
182	11.64	34.34	5.03	1.06	26.16	100	12.83	34.42	26.00	204	0.30
277	10.16	34.16	5.22	1.17	26.29	125	12.46	34.34	26.01	204	0.35
365	8.70	34.11	4.91	1.46	26.49	150	12.07	34.34	26.08	197	0.40
461	6.98	33.95	4.25	2.05	26.62	200	11.37	34.31	26.19	188	0.50
550	5.54	34.00	3.21	2.61	26.84	250	10.59	34.22	26.26	182	0.59
742	4.19	34.11	1.48	2.77	27.08	300	9.79	34.15	26.34	175	0.68
945	3.46	34.31	0.74	3.30	27.31	400	8.07	34.04	26.53	158	0.85
						500	6.31	33.96	26.71	141	1.00
						600	5.04	34.02	26.92	121	1.13
						700	4.36	34.08	27.04	109	1.24
						800	3.98	34.17	27.15	99	1.35
30	CHARLES H. GILBERT; October 18, 1954; 0319 GCT; 36°02'N, 179°58'E; wind, 190°, 22 kt; weather, cloudy; sea, moderate; wire angle, 36°.										
0	20.54	34.20	5.15	0.25	24.03	0	20.54	34.20	24.03	389	0.00
18	20.51	34.29	5.12	0.24	24.11	10	20.52	34.25	24.07	385	0.04
33	20.48	34.22	5.16	0.18	24.06	20	20.53	34.28	24.09	384	0.08
49	19.51	34.42	5.46	0.26	24.47	30	20.52	34.23	24.06	387	0.12
90	15.65	34.60	5.16	0.54	25.54	50	19.41	34.43	24.50	346	0.19
135	14.18	34.43	4.96	0.79	25.73	75	16.40	34.64	25.40	261	0.26
188	13.29	34.45	4.88	0.86	25.93	100	15.17	34.57	25.62	240	0.33
287	11.74	34.27	5.05	1.06	26.09	125	14.35	34.48	25.73	231	0.39
381	9.84	34.23	4.99	1.31	26.40	150	13.88	34.43	25.79	226	0.44
481	7.78	34.00	4.48	1.88	26.54	200	13.11	34.43	25.95	212	0.55
576	6.05	34.00	3.81	2.25	26.78	250	12.34	34.35	26.04	204	0.66
780	4.32	34.07	1.63	2.96	27.04	300	11.49	34.27	26.14	196	0.76
992	3.49	34.31	0.87	3.02	27.31	400	9.44	34.18	26.43	169	0.94
						500	7.40	33.99	26.59	153	1.10
						600	5.75	34.00	26.82	131	1.24
						700	4.90	34.03	26.94	120	1.37
						800	4.24	34.09	27.06	108	1.48

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
CHARLES H. GILBERT; October 20, 1954; 2037 GCT; 39°28'N, 179°38'E; wind, 140°, 12 kt; weather, cloudy; sea, slight; wire angle, 16°.											31
0	15.24	34.07	5.76	0.32	25.22	0	15.24	34.07	25.22	276	0.00
19	15.24	33.95	5.87	0.29	25.13	10	15.24	34.01	25.18	280	0.03
39	15.04	34.00	5.81	0.32	25.21	20	15.26	33.95	25.13	285	0.06
57	13.21	34.33	5.45	0.77	25.85	30	15.20	33.96	25.15	284	0.08
86	11.76	34.33	5.46	0.93	26.13	50	13.97	34.20	25.59	241	0.14
138	10.44	34.25	5.52	1.18	26.31	75	12.17	34.34	26.06	197	0.19
219	8.60	34.11	5.59	1.27	26.51	100	11.32	34.31	26.20	185	0.24
334	6.68	34.02	4.62	1.82	26.71	125	10.69	34.28	26.29	177	0.28
440	5.38	33.98	3.48	2.35	26.84	150	10.15	34.23	26.35	172	0.33
553	4.44	34.07	2.30	2.87	27.02	200	9.00	34.14	26.47	161	0.41
659	4.08	34.16	1.52	2.95	27.13	250	8.02	34.08	26.57	152	0.49
875	3.50	34.31	0.84	3.27	27.31	300	7.18	34.04	26.66	144	0.56
						400	5.82	33.99	26.80	131	0.70
						500	4.82	34.02	26.94	117	0.83
						600	4.25	34.11	27.07	105	0.94
						700	3.97	34.19	27.17	97	1.04
						800	3.70	34.26	27.25	89	1.13
CHARLES H. GILBERT; October 23, 1954; 2137 GCT; 45°00'N, 179°27'E; wind, 250°, 25 kt; weather, cloudy; sea, moderate; wire angle, 51°.											32
0	9.56	33.42	6.42	1.16	25.81	0	9.56	33.42	25.81	219	0.00
16	9.56	33.48	6.48	1.22	25.86	10	9.56	33.46	25.84	217	0.02
33	9.56	33.51	6.45	1.15	25.88	20	9.56	33.50	25.88	214	0.04
41	9.57	33.42	6.43	1.17	25.81	30	9.56	33.52	25.89	213	0.06
59	9.55	33.35	6.46	1.21	25.76	50	9.56	33.36	25.77	225	0.11
82	7.86	33.69	6.43	1.33	26.29	75	8.42	33.57	26.11	192	0.16
122	7.38	33.78	6.40	1.35	26.43	100	7.45	33.77	26.41	164	0.21
187	6.53	33.80	6.40	1.43	26.56	125	7.30	33.78	26.44	162	0.25
244	6.21	33.84	5.48	1.68	26.63	150	6.99	33.80	26.50	157	0.29
313	5.38	33.86	4.55	2.06	26.75	200	6.45	33.81	26.58	150	0.36
384	4.79	33.89	3.26	2.43	26.84	250	6.14	33.84	26.64	144	0.44
556	4.10	34.09	1.66	2.72	27.07	300	5.55	33.86	26.73	136	0.51
746	3.56	34.22	0.96	2.90	27.23	400	4.70	33.91	26.87	123	0.64
						500	4.26	34.02	27.00	111	0.75
						600	3.97	34.12	27.11	101	0.86
						700	3.69	34.19	27.20	94	0.96
CHARLES H. GILBERT; October 24, 1954; 2326 GCT; 44°57'N, 175°47'E; wind, 340°, 14 kt; weather, cloudy; sea, moderate; wire angle, 06°.											33
0	8.54	33.22	6.62	1.38	25.82	0	8.54	33.22	25.82	219	0.00
28	8.52	33.28	6.61	1.37	25.87	10	8.53	33.24	25.84	217	0.02
62	7.76	33.53	6.46	1.29	26.18	20	8.53	33.26	25.85	216	0.04
92	6.76	33.69	6.43	1.31	26.44	30	8.52	33.29	25.88	214	0.06
133	5.84	33.71	6.36	1.43	26.58	50	8.50	33.44	26.00	203	0.11
172	5.54	33.77	6.10	1.56	26.66	75	7.33	33.61	26.30	174	0.15
232	4.98	33.84	4.66	1.96	26.78	100	6.54	33.70	26.48	157	0.20
351	4.20	33.93	2.75	2.55	26.94	125	5.97	33.71	26.56	150	0.23
461	3.92	34.04	1.86	2.73	27.05	150	5.68	33.73	26.61	145	0.27
577	3.57	34.16	1.09	2.76	27.18	200	5.28	33.80	26.71	136	0.34
684	3.38	34.25	0.87	2.89	27.27	250	4.83	33.86	26.81	127	0.41
905	3.02	34.36	0.80	2.86	27.39	300	4.48	33.89	26.88	121	0.47
						400	4.05	33.98	26.99	111	0.58
						500	3.80	34.08	27.10	102	0.69
						600	3.52	34.18	27.20	92	0.79
						700	3.35	34.26	27.28	85	0.88
						800	3.19	34.31	27.34	80	0.96

	OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
	Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
	m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
34	CHARLES H. GILBERT; October 28, 1954; 1910 GCT; 35°45'N, 171°32'E; wind, 060°, 7 kt; weather, cloudy; sea, slight; wire angle, 30°.											
	0a)	20.30	34.38	5.15	0.27	24.23	0	20.30	34.38	24.23	370	0.00
	20	20.28	34.49	5.21	0.30	24.32	10	20.29	34.44	24.28	366	0.04
	43	20 26	34.49	5.15	0.20	24.32	20	20.28	34.49	24.32	362	0.07
	70	20.10	34.49	4.92	0.33	24.37	30	20.28	34.50	24.33	362	0.11
	100	18.23	34.78	4.08	0.70	25.07	50	20.29	34.48	24.31	364	0.18
	137	16.72	34.79	4.69	0.63	25.44	75	20.05	34.49	24.38	358	0.27
	170	15.94	34.74	4.64	0.62	25.58	100	18.23	34.78	25.07	294	0.35
	236	14.00	34.58	4.43	0.89	25.88	125	17.00	34.81	25.39	264	0.42
	294	12.32	34.49	4.78	1.03	26.15	150	16.39	34.78	25.51	253	0.49
	359b)	11.76	34.45	4.48	1.17	26.23	200	15.09	34.67	25.72	234	0.61
							250	13.54	34.55	25.95	213	0.72
							300	12.27	34.49	26.16	194	0.82
35	CHARLES H. GILBERT; October 29, 1954; 0549 GCT; 31°23'N, 172°01'E; wind, 170°, 18 kt; weather, cloudy; sea, rough; wire angle, 27°.											
	0	23.12	34.69	4.90	0.29	23.68	0	23.12	34.69	23.68	422	0.00
	22	22.96	34.76	4.88	0.28	23.78	10	23.05	34.72	23.73	418	0.04
	48	22.94	34.74	4.88	0.23	23.77	20	22.97	34.75	23.77	414	0.08
	65	21.10	34.74	5.31	0.25	24.29	30	22.96	34.76	23.78	414	0.13
	91	18.38	34.76	5.21	0.33	25.01	50	22.94	34.74	23.77	415	0.21
	140	16.73	34.74	4.88	0.56	25.40	75	19.70	34.75	24.67	331	0.30
	390	12.66	34.45	4.78	1.05	26.05	100	17.90	34.76	25.13	287	0.38
	491	10.38	34.34	4.65	1.40	26.39	125	16.98	34.75	25.35	268	0.45
	592	7.31	33.96	4.23	1.98	26.58	150	16.52	34.73	25.44	260	0.51
	1002	3.52	34.36	0.87	3.46	27.35	200	15.90	34.68	25.54	251	0.64
							250	15.10	34.63	25.68	239	0.76
							300	14.20	34.57	25.83	226	0.88
							400	12.46	34.44	26.08	204	1.09
							500	10.11	34.31	26.41	173	1.28
							600	7.24	33.97	26.60	154	1.45
							700	5.80	34.07	26.86	128	1.59
							800	4.80	34.20	27.09	107	1.71
							1000	3.54	34.36	27.35	82	1.89
36	CHARLES H. GILBERT; October 30, 1954; 1852 GCT; 30°59'N, 173°52'E; wind, 200°, 14 kt; weather, intermittent slight rain; sea, moderate; wire angle, 29°.											
	0	24.52	34.94	4.65	0.04	23.46	0	24.52	34.94	23.46	443	0.00
	24	24.54	35.35	4.71	0.04	23.77	10	24.53	35.11	23.59	432	0.04
	49	24.46	35.35	4.70	0.12	23.79	20	24.54	35.28	23.71	421	0.09
	62	20.38	34.97	5.42	0.11	24.66	30	24.54	35.35	23.77	415	0.13
	78	18.47	34.83	5.27	0.19	25.04	50	24.15	35.32	23.86	407	0.21
	129	16.58	34.70	4.89	0.40	25.40	75	18.67	34.84	25.00	299	0.30
	184	15.82	34.65	4.78	0.56	25.54	100	17.19	34.74	25.29	272	0.37
	276	14.02	34.52	4.63	0.84	25.83	125	16.59	34.70	25.40	263	0.44
	368	12.14	34.40	4.70	1.07	26.12	150	16.23	34.68	25.47	257	0.50
	462	10.24	34.23	4.42	1.35	26.33	200	15.53	34.63	25.59	247	0.63
	556	7.81	34.13	4.01	1.87	26.64	250	14.57	34.56	25.74	233	0.75
	752	4.82	34.13	1.98	2.90	27.03	300	13.53	34.49	25.91	218	0.86
	950	3.80	34.31	0.86	3.36	27.28	400	11.52	34.34	26.19	193	1.06
							500	9.25	34.18	26.46	168	1.24
							600	6.93	34.11	26.75	139	1.40
							700	5.38	34.11	26.95	120	1.53
							800	4.57	34.17	27.09	106	1.64

a) All depths somewhat questionable.

b) Last three bottles below this depth apparently fouled a ridge.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CHARLES H. GILBERT; October 31, 1954; 0756 GCT; 30°15'N, 175°36'E; wind, 190°, 14 kt; weather, missing; sea, slight; wire angle, 27°. 37

0	24.75	35.37	4.70	0.23	23.72	0	24.75	35.37	23.72	419	0.00
21	24.72	35.35	4.71	0.22	23.71	10	24.74	35.36	23.71	420	0.04
46	24.63	35.37	4.67	0.17	23.75	20	24.72	35.35	23.71	420	0.08
59	24.17	35.30	4.85	0.29	23.84	30	24.70	35.37	23.73	419	0.13
93	17.91	34.83	5.60	0.28	25.18	50	24.60	35.36	23.75	417	0.21
119	16.54	34.72	5.23	0.42	25.43	75	19.00	34.91	24.97	302	0.30
187	15.12	34.61	4.80	0.70	25.66	100	17.37	34.79	25.28	273	0.37
279	13.61	34.49	4.69	0.93	25.89	125	16.35	34.70	25.46	257	0.44
373	11.63	34.33	4.61	1.23	26.16	150	15.68	34.65	25.57	247	0.50
466	9.77	34.20	4.41	1.66	26.39	200	14.91	34.59	25.69	236	0.62
560	7.73	34.11	4.05	1.88	26.64	250	14.08	34.53	25.83	225	0.74
750	4.82	34.09	2.09	3.28	27.00	300	13.18	34.46	25.96	213	0.85
919	3.71	34.25	0.78	3.70	27.24	400	11.09	34.29	26.23	189	1.05
						500	9.02	34.16	26.48	166	1.23
						600	6.98	34.09	26.73	142	1.38
						700	5.42	34.08	26.92	122	1.51
						800	4.49	34.14	27.07	107	1.63

CHARLES H. GILBERT; October 31, 1954; 2041 GCT; 29°39'N, 177°19'E; wind, 210°, 18 kt; weather, partly cloudy; sea, moderate; wire angle, 25°. 38

0	25.63	35.59	4.59	0.12	23.61	0	25.63	35.59	23.61	429	0.00
28	25.63	35.55	4.61	0.15	23.58	10	25.63	35.58	23.61	430	0.04
57	25.64	35.57	4.57	0.09	23.60	20	25.63	35.56	23.59	432	0.09
66	22.98	35.32	5.23	0.14	24.20	30	25.63	35.57	23.60	431	0.13
94	20.32	35.17	4.84	0.17	24.83	50	25.63	35.59	23.61	431	0.22
151	17.24	34.79	4.91	0.42	25.31	75	21.62	35.22	24.51	346	0.31
207	16.13	34.69	4.91	0.59	25.50	100	19.88	35.13	24.91	309	0.39
311	14.47	34.56	4.57	0.81	25.77	125	18.33	34.95	25.17	285	0.47
414	12.12	34.38	4.68	1.10	26.10	150	17.27	34.80	25.32	271	0.54
518	10.00	34.23	4.38	1.36	26.37	200	16.21	34.70	25.49	256	0.67
829	4.83	34.11	1.67	3.46	27.01	250	15.46	34.64	25.61	246	0.80
1096	3.37	34.40	0.59	3.64	27.39	300	14.65	34.57	25.74	235	0.92
						400	12.45	34.40	26.06	206	1.14
						500	10.50	34.25	26.30	184	1.33
						600	8.00	34.15	26.63	152	1.50
						700	6.30	34.15	26.86	129	1.64
						800	5.20	34.10	26.96	119	1.76
						1000	3.89	34.30	27.26	90	1.97

CHARLES H. GILBERT; November 1, 1954; 0832 GCT; 28°55'N, 178°50'E; wind, 220°, 13 kt; weather, partly cloudy; sea, slight; wire angle, 15°. 39

0	24.12	35.17	4.83	0.16	23.76	0	24.12	35.17	23.75	415	0.00
24	24.12	35.16	4.82	0.20	23.75	10	24.12	35.17	23.75	416	0.04
41	21.28	34.90	5.54	0.18	24.36	20	24.12	35.16	23.75	417	0.08
58	19.76	34.88	5.64	0.16	24.75	30	24.10	35.15	23.75	417	0.12
87	17.89	34.85	5.38	0.33	25.20	50	20.37	34.87	24.58	338	0.20
140	16.29	34.69	4.95	0.48	25.46	75	18.57	34.86	25.04	295	0.28
212	15.29	34.65	4.81	0.62	25.66	100	17.35	34.81	25.30	271	0.35
317	13.34	34.51	4.95	0.83	25.96	125	16.59	34.74	25.43	260	0.42
423	11.52	34.33	4.81	1.16	26.18	150	16.12	34.68	25.49	254	0.48
528	9.15	34.18	4.21	1.67	26.47	200	15.42	34.65	25.63	243	0.61
634	6.80	34.25	3.94	1.77	26.88	250	14.61	34.61	25.77	230	0.72
843	4.83	34.16	1.35	3.43	27.05	300	13.67	34.54	25.92	217	0.84
1014	3.58	34.36	0.68	3.54	27.34	400	11.93	34.37	26.13	199	1.04
						500	9.81	34.21	26.39	175	1.23
						600	7.50	34.22	26.76	140	1.39
						700	5.96	34.22	26.96	119	1.52
						800	5.07	34.18	27.04	112	1.63
						1000	3.68	34.34	27.32	85	1.83

40

CHARLES H. GILBERT; November 1, 1954; 1928 GCT; 28°11'N, 179°43'W; wind, 260°, 10 kt; weather, partly cloudy; sea, smooth; wire angle, 15°.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
0	24.19	35.14	4.74	0.21	23.71	0	24.19	35.14	23.71	419	0.00
19	24.19	35.14	4.75	0.14	23.71	10	24.19	35.14	23.71	420	0.04
33	24.19	35.16	4.77	0.17	23.73	20	24.19	35.15	23.72	420	0.08
47	20.51	34.84	5.67	0.19	24.52	30	24.19	35.14	23.71	421	0.13
72	17.58	34.72	5.59	0.21	25.18	50	20.00	34.81	24.64	333	0.20
124	16.08	34.65	4.91	0.54	25.48	75	17.40	34.71	25.21	279	0.28
211	15.09	34.52	4.89	0.72	25.60	100	16.50	34.67	25.40	262	0.35
317	13.38	34.43	4.75	0.97	25.89	125	16.06	34.65	25.48	254	0.41
423	11.21	34.29	4.76	1.29	26.20	150	15.70	34.61	25.53	250	0.47
528	8.77	34.13	4.39	1.83	26.49	200	15.17	34.54	25.60	246	0.60
632	6.30	34.27	4.06	1.52a)	26.96	250	14.52	34.48	25.69	238	0.72
840	4.16	34.22	1.00	3.56	27.17	300	13.69	34.44	25.84	225	0.83
1048	3.40	34.47	0.61	3.55	27.45	400	11.71	34.32	26.14	198	1.05
						500	9.44	34.16	26.41	172	1.23
						600	7.01	34.24	26.84	131	1.38
						700	5.32	34.26	27.07	108	1.50
						800	4.37	34.24	27.17	99	1.60
						1000	3.58	34.41	27.38	78	1.78

a) Value uncertain; not used in interpolation.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

PF1

USCGSS PATHFINDER; June 1, 1954; 0100 GCT; 54°15'N, 166°45'W; sounding, 1048 m; wind, 030°, 2 m/sec; weather, partly cloudy; sea, slight.

0	5.08	32.57	25.77	0	5.08	32.57	25.77	223a)	0.00
21	4.82	32.65	25.86	10	5.06	32.63	25.81	220	0.02
31	4.41	32.64	25.89	20	4.85	32.65	25.85	216	0.04
41	4.31	32.65	25.91	30	4.44	32.64	25.89	212	0.06
51	3.89	32.84	26.10	50	3.92	32.82	26.08	194	0.11
				75	3.76	33.04	26.28	175	0.15
75	3.76	33.04	26.28	100	3.68	33.04	26.28	175	0.20
100	3.68	33.04	26.28	150	3.61	33.18	26.40	164	0.28
150	3.61	33.18	26.40	200	3.40	33.27	26.49	155	0.36
200	3.40	33.27	26.49	250	3.12	33.40	26.62	143	0.44
250	3.12	33.40	26.62	300	3.63	33.60	26.73	132	0.51
				400	3.56	33.86	26.95	111	0.63
300	3.63	33.60	26.73	500	3.48	34.05	27.10	97	0.74
400	3.56	33.86	26.95	600	3.32	34.11	27.17	91	0.84
500	3.48	34.05	27.10	800	3.01	34.29	27.34	74	1.01
600	3.32	34.11	27.17						
800	3.01	34.29	27.34						

PF2

USCGSS PATHFINDER; June 11, 1954; 0000 GCT; 57°01'N, 169°42'W; sounding, 59 m; wind, 270°, 2 m/sec; weather, sky obscured; sea, smooth.

0	2.48	31.85	25.44	0	2.48	31.85	25.44	255	0.00
10	2.04	31.92	25.53	10	2.04	31.92	25.53	246	0.02
20	1.94	31.86	25.49	20	1.94	31.86	25.49	250	0.05
30	1.92	31.86	25.49	30	1.92	31.86	25.49	250	0.08
50	1.90	31.89	25.51	50	1.90	31.89	25.51	248	0.12

PF3

USCGSS PATHFINDER; September 14, 1954; 1800 GCT; 61°58'N, 170°25'W; sounding, 48 m; wind, 150°, force missing; weather, slight drizzle and rain; sea, moderate.

0	5.87	31.30	24.67	0	5.87	31.30	24.67	328	0.00
10	7.33	31.33	24.51	10	7.33	31.33	24.51	343	0.03
20	7.23	31.28	24.49	20	7.23	31.28	24.49	345	0.07
30	6.44	31.35	24.64	30	6.44	31.35	24.64	331	0.10
44	0.14	31.80	25.54						

PF4

USCGSS PATHFINDER; September 15, 1954; 0100 GCT; 61°00'N, 169°28'W; sounding, 39 m; wind, 150°, 12 m/sec; weather, missing; sea, slight.

0	6.53	31.27	24.57	0	6.53	31.27	24.57	338	0.00
12	6.55	31.22	24.53	10	6.55	31.23	24.53	341	0.03
22	6.50	31.25	24.56	20	6.52	31.24	24.55	340	0.07
26	6.44	31.26	24.57						

PF5

USCGSS PATHFINDER; September 15, 1954; 1800 GCT; 58°36'N, 169°26'W; sounding, 58 m; wind, 080°, 9 m/sec; weather, slight drizzle and rain; sea, slight.

0	6.66	31.36	24.62	0	6.66	31.36	24.62	333	0.00
10	6.64	31.39	24.65	10	6.64	31.39	24.65	330	0.03
20	6.64	31.35	24.62	20	6.64	31.35	24.62	333	0.07
30	6.73	31.35	24.61	30	6.73	31.35	24.61	334	0.10
50	6.45	31.44	24.71	50	6.45	31.44	24.71	324	0.17

a) Values of thermosteric anomaly were computed by the Data Collecting and Processing Group of Scripps Institution.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
USCGSS EXPLORER; September 9, 1954; 2200 GCT; 51°28'N, 177°05'W; sounding, 2432 m; wind, 270°, 6 m/sec.											
1	-	33.24	5.51		0		(33.24)	(5.51)		(186)a)	(0.00)
5	6.17	33.26	5.59	26.18	10	6.13	33.22	5.60	26.15	187	0.02
10	6.13	33.22	5.60	26.15	20	6.15	33.24	5.52	26.17	185	0.04
20	6.15	33.24	5.52	26.17	30	6.07	33.24	5.51	26.18	184	0.06
30	6.07	33.24	5.51	26.18	50	5.82	33.26	5.24	26.22	181	0.09
					75	5.28	33.28	4.86	26.30	173	0.14
49	5.85	33.26	5.26	26.22	100	4.99	33.33	4.52	26.38	166	0.18
74	5.29	33.28	4.87	26.30	150	4.62	33.48	3.76	26.54	150	0.26
99	5.00	33.33	4.54	26.38	200	4.41	33.52	3.44	26.59	146	0.33
148	4.63	33.48	3.77	26.53	250	4.26	33.62	2.83	26.69	136	0.40
					300	4.11	33.74	2.12	26.80	126	0.47
190	4.45	33.51	3.46	26.58	400	3.77	33.91	1.54	26.97	110	0.59
238	4.28	33.57	3.11	26.64	500	3.57	34.10	0.82	27.14	93	0.70
286	4.17	33.73	2.16	26.78	600	3.46	34.14	0.67	27.18	90	0.79
382	3.81	33.86	1.75	26.92	800	3.34	34.23	0.53	27.26	82	0.98
					1000	3.06	34.34	0.47	27.38	71	1.14
490	3.59	34.09	0.84	27.13	1200	2.79	34.41	0.45	27.46	63	1.29
588	3.46	34.14	0.68	27.18	1500	2.47	34.48	0.58	27.54	56	1.49
687	3.42	34.16	0.62	27.20	2000						(1.78)
786	3.36	34.22	0.53	27.25							
981	3.09	34.33	0.48	27.36							
1178	2.81	34.40	0.44	27.45							
1474	2.50	34.47	0.56	27.53							
1971	1.93	34.58	1.19	27.66							

a) Values of thermosteric anomaly and geopotential anomaly were computed by the Data Collecting and Processing Group of Scripps Institution.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

SPENCER F. BAIRD; February 4, 1954; 0042 GCT; 24°05.5'N, 155°54'W; sounding, 2165 fm; wind, 200°, 15 kt; weather, cloudy; sea, rough. 1

0	22.87a)	35.41	0	22.87	35.41	24.30	363b)	0.00
26	-	35.40	10	22.87	35.41	24.30	363	0.04
53	-	35.41	20	22.84	35.41	24.31	362	0.07
105	22.43	35.39	30	22.78	35.41	24.33	360	0.11
158	-	35.33	50	22.71	35.41	24.35	359	0.18
211	18.05	34.92	75	22.66	35.40	24.35	359	0.27
316	12.53	34.35	100	22.52	35.39	24.39	355	0.36
423	9.36	34.10	150	21.80	35.34	24.55	340	0.54
529	6.97	34.05	200	18.95	35.02	25.06	291	0.70
635	5.30	34.13	250	15.17	34.69	25.71	229	0.83
741	4.79	34.22	300	13.06	34.41	25.94	207	0.94
848	4.32	34.34	400	9.97	34.14	26.31	172	1.14
954	4.02	34.45	500	7.55	34.05	26.62	143	1.31
1061	3.72	34.54	600	5.74	34.10	26.90	116	1.44
1278	3.20	34.59	650	5.18	34.14			
1607	2.51	34.64	700	4.91	34.18			
			750	4.74	34.23			
152c)	21.78	35.34	800	4.51	34.29	27.19	89	1.66
162	20.80	35.32	850	4.31	34.34			
185	19.92	35.19	900	4.17	34.40			
			1000	3.89	34.50	27.42	67	1.83
			1200	3.38	34.58	27.54	56	1.97
			1500	2.72	34.62	27.63	47	2.16
			1600	2.52	34.64			

SPENCER F. BAIRD; February 4, 1954; 1613 GCT; 23°19'N, 158°15'W; sounding, 2470 fm; wind, 210°, 14 kt; weather, slight rain showers; sea, rough. 2

0	22.98	35.34	0	22.98	35.34
22	-	35.32	10	22.98	35.33
45	-	35.34	20	22.98	35.32
93	22.27	35.25	30	22.96	35.32
140	-	35.08	50	22.89	35.34
			75	22.77	35.30
			100	21.71	35.23
			150	20.30	(35.00)
			200	18.54	(34.40)
770	4.85	34.29			
869	4.59	34.41			
969	4.29	34.52			
1172	3.68	34.54			
1491	2.98	34.56			
			800	4.77	34.33
26c)	22.98	35.32	850	4.64	34.39
90	22.70	35.26	900	4.49	34.45
105	21.41	35.21	1000	4.19	34.52
123	21.15	35.14	1200	3.61	34.54
130	20.59	35.12	1500	(2.96)	(34.56)
146	20.44	(35.05)			
162	19.30	(34.90)			
239	16.61	(34.30)			

a) Bathythermograph data were used to obtain the temperature profile and interpolated values in the upper 250 meters on all stations but this one and the station occupied on September 14 in the Experimental Area (no BT data available).

b) Values of thermosteric anomaly were computed by the Data Collecting and Processing Group of Scripps Institution.

c) Overlapping cast.

3

SPENCER F. BAIRD; February 5, 1954; 0438 GCT; 23°07.5'N, 156°32.5'W; sounding, 2305 fm; wind, 220°, 6 kt; weather, cloudy; sea, moderate.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m
0	22.72	35.38	0	22.72	35.38	24.32	361	0.00
27	-	35.37	10	22.72	35.38	24.32	361	0.04
55	-	35.38	20	22.66	35.37	24.33	360	0.07
110	22.11	35.40	30	22.51	35.37	24.37	357	0.11
166	-	35.26	50	22.30	35.38	24.44	350	0.18
222	18.32	34.92	75	22.28	35.39	24.45	349	0.27
334	12.55	34.28	100	22.15	35.40	24.50	344	0.36
448	8.50	34.10	150	21.19	35.32	24.70	325	0.53
562	6.69	34.09	200	19.13	35.07	25.06	291	0.68
675	5.43	34.19	250	16.34	34.74	25.49	250	0.82
790	4.83	34.31	300	13.95	34.46	25.80	221	0.94
904	4.31	34.41	400	10.01	34.14	26.30	173	1.15
1019	4.04	34.51	500	7.53	34.09	26.65	140	1.31
1133	3.71	34.58	600	6.24	34.11	26.84	122	1.45
1365	3.18	34.59	650	5.68	34.16			
1717	2.47	34.61	700	5.29	34.21			
			750	5.02	34.27			
15a)	22.72	35.37	800	4.78	34.32	27.18	90	1.57
82	22.28	35.39	850	4.53	34.36			
110	22.00	35.40	900	4.32	34.41			
159	20.89	35.29	1000	4.08	34.49	27.39	70	1.73
183	20.44	35.17	1200	3.54	34.57	27.51	58	1.88
191	19.30	35.12	1500	2.90	34.60	27.60	50	2.07
207	19.00	35.02	1700	2.50	34.61			
217	18.29	34.95						
231	18.00	34.86						

4

SPENCER F. BAIRD; February 5, 1954; 1521 GCT; 21°48.5'N, 155°32.5'W; sounding, 2740 fm; wind, 260°, 13 kt; weather, missing; sea, moderate.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m
0	23.28	35.24	0	23.28	35.24	24.06	386	0.00
28	-	35.25	10	23.28	35.24	24.06	386	0.04
57	-	35.25	20	23.28	35.25	24.06	386	0.08
113	22.64	35.26	30	23.28	35.25	24.06	386	0.12
170	-	34.69	50	22.92	35.25	24.17	376	0.19
228	14.08	34.28	75	22.70	35.25	24.23	370	0.29
341	9.69	34.13	100	22.69	35.26	24.24	369	0.38
456	7.45	34.10	150	21.35	34.94	24.37	357	0.56
570	6.16	34.20	200	16.40	34.40	25.21	277	0.73
684	5.34	34.33	250	12.81	34.24	25.86	215	0.85
798	4.89	34.45	300	10.89	34.17	26.17	185	0.95
912	4.45	34.51	400	8.42	34.10	26.53	151	1.10
1023	4.09	34.52	500	6.85	34.13	26.78	128	1.25
1131	3.73	34.57	600	5.93	34.24	26.98	109	1.38
1335	3.19	34.60	650	5.57	34.29			
1646	2.60	34.60	700	5.28	34.35			
			750	5.08	34.40			
38a)	23.28	35.25	800	4.88	34.45	27.27	81	1.58
55	22.78	35.25	850	4.69	34.48			
113	22.64	35.26	900	4.50	34.50			
140	22.13	35.04	1000	4.16	34.53	27.42	67	1.75
165	18.39	34.75	1200	3.54	34.58	27.52	57	1.89
171	18.39	34.68	1500	2.86	34.59	27.59	51	2.10
			1600	2.67	34.60			

a) Overlapping cast.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m

SPENCER F. BAIRD; February 6, 1954; 2018 GCT; 22°10'N, 157°14.5'W; sounding, 2395 fm; wind, 290°, 4 kt; weather, partly cloudy; sea, slight. 5

0	23.33	35.23	0	23.33	35.23	24.03	389	0.00
24	-	35.22	10	23.32	35.23	24.03	389	0.04
50	-	35.23	20	23.32	35.22	24.03	389	0.08
99	22.78	35.24	30	23.31	35.22	24.03	389	0.12
148	-	35.39	50	23.12	35.23	24.09	383	0.19
197	19.26	35.07	75	23.00	35.24	24.14	379	0.29
295	14.26	34.42	100	22.78	35.24	24.20	373	0.39
394	9.42	34.14	150	22.75	35.39	24.38	356	0.57
494	6.50	34.15	200	19.14	35.04	25.03	294	0.74
594	5.70	34.23	250	16.88	34.66	25.30	268	0.88
695	5.20	34.34	300	13.99	34.40	25.74	226	1.01
795	4.85	34.42	400	9.18	34.14	26.44	160	1.21
896	4.49	34.45	500	6.41	34.15	26.85	121	1.36
996	4.10	34.52	600	5.66	34.24	27.02	105	1.48
1197	3.47	34.57	650	5.38	34.29			
1500	2.89	34.60	700	5.19	34.35			
			750	5.00	34.39			
42a)	23.28	35.23	800	4.83	34.42	27.26	82	1.58
60	23.02	35.24	850	4.66	34.45			
175	20.99	35.32	900	4.48	34.47			
191	20.09	35.13	1000	4.09	34.52	27.42	67	1.75
225	18.48	34.84	1200	3.46	34.57	27.52	57	1.89
			1500	2.89	34.60	27.60	50	2.08

SPENCER F. BAIRD; February 7, 1954; 0355 GCT; 21°37.5'N, 157°35.5'W; sounding, 1370 fm; wind, 320°, 17 kt; weather, partly cloudy; sea, rough. 6

0	23.46	35.34	0	23.46	35.34
25	-	35.23	10	23.46	35.29
50	-	35.24	20	23.46	35.24
101	22.99	35.23	30	23.46	35.23
152	-	35.13	50	23.40	35.24
			75	23.19	35.24
			100	23.00	35.23
			150	21.45	35.14
			200	18.95	(34.95)
			250	14.40	(34.65)
844	4.61	34.52			
952	4.13	34.56			
1060	3.78	34.59			
1275	3.30	34.62			
38a)	23.46	35.24			
122	22.78	35.20			
133	22.11	35.18	850	4.58	34.52
145	21.99	35.15	900	4.35	34.54
160	20.54	(35.10)	1000	3.95	34.56
175	20.37	(35.05)	1200	3.44	34.59
185	19.36	(35.00)	1300	(3.26)	(34.62)
259	13.06	(34.60)			

a) Overlapping cast.

2

USS MARYSVILLE; March 25, 1954; 1730 GCT; 31°07'N, 120°54'W; sounding, 2100 fm; wind, missing; weather, missing; sea, missing.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm/g	dyn. m
0	14.19	33.22	0	14.19	33.22			
46	-	33.11	10	14.19	33.21			
92	10.05	33.21	20	14.19	33.19			
139	-	33.78	30	14.19	33.15			
188	7.96	33.93	50	14.12	33.11			
285	7.02	34.13	75	12.39	33.15			
380	6.61	34.25	100	9.79	33.42			
477	6.05	34.33	150	8.61	33.80			
575	5.37	34.36	200	7.80	33.86			
675	4.90	34.36	250	7.31	34.16			
777	4.57	34.43	300	6.99	34.20			
884	4.29	34.46	400	6.50	34.26			
997	3.95	34.46	500	5.90	34.34			
			600	5.24	34.36			
			650	5.01	34.36			
			700	4.81	34.37			
			750	4.65	34.41			
			800	4.50	34.44			
			850	4.38	34.46			
			900	4.24	34.46			
			1000	(3.94)	(34.46)			

1

USS MARYSVILLE; August 10, 1954; 1641 GCT; 31°52'N, 122°12'W; sounding, 2290 fm; wind, 320°, 3 kt; weather, overcast; sea, moderate.

0	16.38	33.28	0	16.38	33.28			
28	-	33.27	10	16.38	33.28			
57	-	32.95	20	16.38	33.27			
112	9.88	33.51	30	15.22	33.25			
167	-	33.98	50	12.34	32.99			
222	8.15	34.12	75	11.84	33.10			
330	6.92	34.14	100	10.42	33.39			
442	5.96	34.18	150	9.00	33.86			
554	5.44	34.35	200	8.29	34.08			
667	4.91	34.36	250	7.40	34.13			
779	4.60	34.35	300	7.11	34.14			
892	4.25	34.36	400	6.30	34.16			
1004	3.91	34.42	500	5.69	34.27			
1117	3.60	34.53	600	5.20	34.34			
1342	3.09	34.58	650	4.98	34.35			
1679	2.49	34.58	700	4.82	34.35			
			750	4.68	34.35			
24a)	16.38	33.27	800	4.53	34.36			
61	11.94	32.95	850	4.38	34.36			
225	8.12	34.12	900	4.23	34.37			
			1000	3.93	34.42			
			1200	3.40	34.56			
			1500	2.79	34.58			
			1700	(2.46)	(34.58)			

a) Overlapping cast.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

USS MARYSVILLE; August 13, 1954; 0247 GCT; 30°10.5'N, 121°43'W; sounding, 2250 fm; wind, 350°, 11 kt; weather, overcast; sea, moderate. 2

0	17.00	33.15	0	17.00	33.15
20	-	33.16	10	17.00	33.16
41	-	33.08	20	16.98	33.16
82	10.61	33.06	30	16.47	33.13
121	-	33.33	50	15.05	33.07
159	8.54	33.80	75	11.92	33.06
237	7.58	34.05	100	9.83	33.16
316	7.07	34.24	150	8.65	33.71
394	6.67	34.23	200	8.02	33.95
472	5.94	34.23	250	7.49	34.08
549	5.51	34.31	300	7.16	34.21
627	5.12	34.31	400	6.60	34.23
706	4.78	34.32	500	5.78	34.27
			600	5.25	34.31
			650	5.01	34.32
			700	4.81	34.32

USS MARYSVILLE; September 14, 1954; 1909 GCT; 30°50'N, 121°01.5'W; sounding, 2188 fm; wind, 350°, 15 kt; weather, clear; sea, moderate. 1

0	17.54	33.39	0	17.54	33.39
19	-	33.39	10	17.51	33.39
40	-	33.13	20	17.48	33.39
85	11.25	33.12	30	17.43	33.22
133	-	33.49	50	15.83	33.12
182	8.38	33.84	75	14.30	33.11
279	6.90	33.98	100	10.26	33.22
374	6.15	34.07	150	8.83	33.66
474	5.88	34.27	200	8.05	33.87
570	5.29	34.25	250	7.23	33.95
669	4.96	34.33	300	6.72	34.01
766	4.62	34.38	400	5.82	34.12
867	4.22	34.40	500	5.52	34.21
969	3.91	34.40	600	5.19	34.19
1180	3.43	34.45	700	4.86	34.35
1534	2.72	34.52	800	4.48	34.39
			900	4.12	34.41
40a)	17.39	33.13	1000	3.84	34.42
46	15.89	33.12	1200	3.39	34.45
64	15.72	33.11	1500	2.79	34.51
68	14.44	33.11			
76	14.28	33.11			

a) Overlapping cast.

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	m	°C	‰	g/L	10^{-5} cm^3/g	dyn. m
1	USS MARYSVILLE; June 10, 1954; 1701 GCT; 36°16.5'N, 122°07.5'W; sounding, 400 fm; wind, 360°, 12 kt; weather, partly cloudy; sea, moderate.							
0a)	12.06	33.62	0	12.06	33.62			
28	-	33.54	10	11.50	33.58			
			20	10.20	33.56			
40b)	9.25	33.42	30	9.70	33.53			
			50	8.60	33.50			
57a)	-	33.52	75	8.40	33.57			
115	8.35	33.82	100	8.36	33.71			
173	-	34.01	150	8.20	33.96			
231	7.80	34.03	200	7.98	34.02			
346	7.08	34.16	250	7.68	34.05			
462	6.31	34.23	300	7.36	34.11			
577	5.74	34.24	400	6.67	34.20			
			500	6.14	34.23			
			600	(5.60)	(34.24)			
2	USS MARYSVILLE; June 9, 1954; 1727 GCT; 36°11.5'N, 122°16.5'W; sounding, 200 fm; wind, 320°, 6-15 kt; weather, overcast; sea, rough.							
0a)	12.36	33.26	0	12.36	33.26			
21	-	33.50	10	12.19	33.40			
43	-	33.49	20	11.68	33.50			
			30	11.12	33.50			
52b)	10.35	33.50	50	10.76	33.50			
65	10.21	33.55	75	9.79	33.61			
			100	8.95	33.71			
87a)	9.21	33.68	150	8.10	33.84			
134	-	33.77	200	7.49	33.98			
184	7.57	33.96	250	7.22	34.04			
288	7.05	34.06	300	6.95	34.06			
397	6.30	34.09	400	6.29	34.09			
507	5.42	34.21	500	5.48	34.20			
618	4.98	34.27	600	5.02	34.26			
728	4.68	34.37	650	4.89	34.30			
841	4.36	34.38	700	4.76	34.35			
954	3.96	34.42	750	4.62	34.38			
1069	3.67	34.47	800	4.47	34.38			
			850	4.33	34.38			
			900	4.14	34.40			
			1000	3.84	34.44			
			1100	(3.60)	(34.49)			

a) First cast.
b) Second cast.

OBSERVED			INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	Z m	T °C	S ‰	σ_t g/L	δ_T 10^{-5} cm^3/g	ΔD dyn. m

USS MARYSVILLE; June 10, 1954; 0121 GCT; 36°04'N, 122°34'W; sounding, 1775 fm; wind, 320°, 13 kt; weather, overcast; sea, moderate. 3

0a)	13.70	33.15	0	13.70	33.15
22	-	33.13	10	13.69	33.14
			20	13.62	33.13
25b)	13.28	33.13	30	13.27	33.12
			50	13.05	33.13
43a)	-	33.12	75	10.15	33.28
86	9.30	33.35	100	9.09	33.43
129	-	33.67	150	8.28	33.86
173	7.95	33.95	200	7.68	33.98
260	7.09	34.02	250	7.20	34.02
346	6.15	34.06	300	6.60	34.04
433	5.60	34.14	400	5.70	34.11
526	5.42	34.25	500	5.40	34.22
616	4.99	34.34	600	5.01	34.33
708	4.70	34.39	650	4.87	34.36
801	4.39	34.43	700	4.72	34.38
894	4.10	34.44	750	4.56	34.42
1096	3.58	34.46	800	4.40	34.43
1421	2.89	34.54	850	4.25	34.44
			900	4.09	34.44
			1000	3.73	34.45
			1200	3.26	34.48
			1500	(2.79)	(34.55)

USS MARYSVILLE; October 5, 1954; 1805 GCT; 36°00'N, 122°50'W; sounding, 1900 fm; wind, 360°, 12 kt; weather, overcast; sea, moderate. 1

0	15.72	33.32	0	15.72	33.32
18	-	33.30	10	15.68	33.31
33	-	32.94	20	14.75	33.29
65	9.92	33.53	30	11.10	32.98
96	-	33.72	50	10.27	33.05
130	8.61	33.91	75	9.59	33.62
203	8.00	34.04	100	9.07	33.75
271	7.57	34.07	150	8.42	33.96
345	6.60	34.11	200	8.03	34.04
421	5.92	34.31	250	7.69	34.06
495	5.68	34.39	300	7.31	34.08
567	5.26	34.38	400	6.03	34.25
645	4.78	34.45	500	5.65	34.39
724	4.43	34.27	600	5.03	34.43
			650	4.78	34.45
			700	4.54	34.46

a) First cast.
b) Second cast.

UW

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

56-1

BROWN BEAR; April 29, 1954; 0434 GCT;[a] 48°18.5'N, 124°04'W; sounding, 102 fm; wind, 270°, 13 kt; weather, partly cloudy; wire angle, 06°.

0	8.04	31.30	5.52	0	8.04	31.30	5.52	24.39	355	0.00
5	8.00	31.25	5.60	10	8.10	31.25	5.48	24.34	359	0.04
10	8.10	31.25	5.48	20	8.09	31.27	5.45	24.36	358	0.07
20	8.09	31.27	5.45	30	7.91	31.47	5.12	24.54	341	0.11
30	7.91	31.47	5.12	50	7.62	32.10	4.29	25.08	290	0.17
50	7.62	32.10	4.29	75	7.54	33.13	3.30	25.89	213	0.23
75	7.54	33.13	3.30	100	7.04	33.52	2.58	26.27	177	0.28
99	7.06	33.50	2.60	150	6.43	33.94	1.87	26.68	139	0.36
138	6.50	33.90	1.95							
178	6.43	33.88	1.94							

56-2

BROWN BEAR; April 29, 1954; 0930 GCT; 48°29'N, 124°45'W; sounding, 145 fm; wind, 160°, 11 kt; weather, clear; wire angle, 07°.

0	8.03	31.27	5.99	0	8.03	31.27	5.99	24.37	357	0.00
10	8.08	31.27	5.99	10	8.08	31.27	5.99	24.36	358	0.04
20	8.07	31.47	5.54	20	8.07	31.47	5.54	24.52	343	0.07
30	7.73	31.91	4.66	30	7.73	31.91	4.66	24.91	306	0.10
49	7.65	32.71	4.00	50	7.64	32.73	3.98	25.57	244	0.16
73	-	33.17	3.34	75	7.30	33.21	3.26	25.99	204	0.21
98	7.02	33.61	2.54	100	6.99	33.62	2.52	26.36	169	0.26
147	6.50	-	-	150	6.48	33.84	2.12	26.60	147	0.34
196	6.22	33.95	1.81	200	6.19	33.96	1.79	26.73	135	0.41
244	5.90	33.98	1.58							

56-3

BROWN BEAR; April 29, 1954; 1353 GCT; 48°08'N, 125°19.5'W; sounding, 67 fm; wind, 320°, 8 kt; weather, clear; wire angle, 10°, 10°.

0	8.71	31.27	6.79	0	8.71	31.27	6.79	24.27	366	0.00
5	8.70	31.25	6.85	10	8.72	31.27	6.79	24.27	367	0.04
10	8.72	31.27	6.79	20	8.56	31.60	6.55	24.55	340	0.07
20	8.56	31.60	6.55	30	8.22	32.09	5.82	24.98	299	0.10
30	8.22	32.09	5.82	50	7.92	32.40	5.92	25.27	272	0.16
50	7.92	32.40	5.92	75	7.81	32.55	5.54	25.40	261	0.46
75	7.81	32.55	5.54							
99	7.74	32.70	4.61							

56-4

BROWN BEAR; April 29, 1954; 1559 GCT; 48°02'N, 125°03'W; sounding, 67 fm; wind, missing; weather, clear; wire angle, 00°.

0	8.86	30.99	6.38	0	8.86	30.99	6.38	24.03	389	0.00
10	8.86	31.02	6.38	10	8.86	31.02	6.38	24.05	387	0.04
20	8.61	31.49	5.87	20	8.61	31.49	5.87	24.46	349	0.08
30	8.21	32.11	5.52	30	8.21	32.11	5.52	25.00	297	0.11
50	7.92	32.52	5.10	50	7.92	32.52	5.10	25.36	263	0.16
75	-	33.23	3.40	75		33.23	3.40			
100	7.08	33.83	2.34	100	7.08	33.83	2.34	26.51	156	

56-5

BROWN BEAR; April 29, 1954; 1736 GCT; 47°56.5'N, 124°48'W; sounding, 27 fm; wind, 180°, 16 kt; weather, cloudy; wire angle, 02°.

0	7.87	31.78	5.77	0	7.87	31.78	5.77	24.79	317	0.00
10	7.92	31.87	5.68	10	7.92	31.87	5.68	24.85	311	0.03
20	7.91	32.45	4.85	20	7.91	32.45	4.85	25.31	268	0.06
30	7.64	33.19	3.63	30	7.64	33.19	3.63	25.93	209	0.16
40	7.43	33.42	3.05							

a) Times reported are those of the messenger release of the first cast.

UW BB-56

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn. m
56-6	BROWN BEAR; April 29, 1954; 1933 GCT; 47°50'N, 125°04'W; sounding, 78 fm; wind, 320°, 13 kt; weather, overcast; wire angle, 03°.									
0	8.98	30.97	6.75	0	8.98	30.97	6.75	23.99	392	0.00
10	8.92	30.97	6.82	10	8.92	30.97	6.82	24.00	392	0.04
20	8.40	31.93	6.19	20	8.40	31.93	6.19	24.83	313	0.07
30	8.13	32.30	6.45	30	8.13	32.30	6.45	25.16	282	0.10
50	7.88	32.57	5.92	50	7.88	32.57	5.92	25.41	259	0.16
75	-	33.16	3.70	75		33.16	3.70			
100	7.69	33.55	3.09	100	7.69	33.55	3.09	26.20	185	
56-7	BROWN BEAR; April 29, 1954; 2319 GCT; 47°20'N, 124°47'W; sounding, 265 fm; wind, 290°, 10 kt; weather, overcast; wire angle, 24°.									
0	9.08	30.95	7.21	0	9.08	30.95	7.21	23.96	396	0.00
9	9.02	30.97	6.98	10	8.98	31.17	6.84	24.15	378	0.04
18	8.67	32.27	6.17	20	8.57	32.30	6.23	25.09	288	0.07
27	8.27	32.39	6.38	30	8.16	32.41	6.43	25.24	274	0.10
44	7.82	32.54	6.38	50	7.86	32.57	6.22	25.41	258	0.15
66	7.91	32.78	5.40	75	7.88	33.05	4.47	25.78	223	0.21
88	7.80	33.39	3.35	100	7.62	33.51	3.11	26.18	186	0.26
131	7.19	-	-	150	6.95	33.87	2.35	26.56	151	0.35
170	6.72	33.94	2.15	200	6.39	33.98	1.97	26.72	136	0.42
210	6.29	33.97	1.94							
56-8	BROWN BEAR; April 30, 1954; 0239 GCT; 47°09.5'N, 124°23'W; sounding, 21 fm; wind, 320°, 16 kt; weather, partly cloudy; wire angle, 07°.									
0	8.98	32.11	7.11	0	8.98	32.11	7.11	24.88	308	0.00
10	8.96	32.14	7.09	10	8.96	32.14	7.09	24.91	305	0.03
20	8.80	32.20	5.90	20	8.80	32.20	5.90	24.98	299	0.09
30	8.14	32.87	4.22	30	8.14	32.87	4.22	25.60	241	0.26
56-9	BROWN BEAR; April 30, 1954; 0704 GCT; 47°02.5'N, 125°02'W; sounding, 450 fm; wind, 320°, 18 kt; weather, cloudy; wire angle, 20°, 20°, 20°, 15°, 20°.									
0	8.44	31.26	6.57	0	8.44	31.26	6.57	24.30	363	0.00
10	8.46	31.27	6.56	10	8.46	31.27	6.56	24.31	363	0.04
				20	8.51	31.31	6.45	24.33	361	0.07
19	8.50	31.26	6.46	30	8.47	31.73	6.29	24.66	329	0.11
				50	8.25	32.41	5.47	25.23	276	0.17
28	8.51	31.65	6.35	75	8.12	33.01	4.13	25.72	230	0.23
46	8.25	32.30	5.73	100	7.88	33.48	3.34	26.12	192	0.28
				150	7.25	33.83	2.46	26.48	158	0.37
72	8.15	32.94	4.24	200	6.33	33.99	1.86	26.73	135	0.44
				250	5.94	34.00	1.52	26.79	130	0.51
96	7.91	33.44	3.42							
145	7.37	-	-							
194	6.40	33.99	1.92							
243	5.98	34.00	1.56							
292	5.84	34.02	1.48							
56-10	BROWN BEAR; April 30, 1954; 1056 GCT; 46°37'N, 125°02'W; sounding, 518 fm; wind, 340°, 20 kt; weather, clear; wire angle, 12°.									
0	8.94	31.54	6.90	0	8.94	31.54	6.90	24.44	350	0.00
10	8.94	31.52	6.96	10	8.94	31.52	6.96	24.43	351	0.04
20	8.99	31.52	6.92	20	8.99	31.52	6.92	24.42	352	0.07
29	8.56	32.31	6.60	30	8.53	32.31	6.61	25.11	287	0.10
49	8.10	32.44	6.37	50	8.10	32.45	6.32	25.28	271	0.16
73	8.06	32.81	5.11	75	8.05	32.86	5.00	25.61	240	0.22
98	7.94	33.31	3.90	100	7.92	33.33	3.85	26.00	204	0.28
147	7.46	-	-	150	7.43	33.74	2.84	26.39	167	0.37
196	6.94	33.94	2.30	200	6.90	33.95	2.26	26.63	145	0.45
246	6.48	33.95	2.09							

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn. m

BROWN BEAR; April 30, 1954; 1615 GCT; 46°12.5'N, 124°16'W; sounding, 40 fm; wind, 140°, 6 kt; weather, partly cloudy; wire angle, 20°. 56-11

0	8.98	27.17	6.07	0	8.98	27.17	6.07	21.03	676	0.00
9	8.47	31.26	6.79	10	8.51	31.32	6.91	24.34	360	0.05
19	8.46	31.85	6.76	20	8.36	31.90	6.44	24.81	315	0.09
28	7.76	32.36	4.35	30	7.80	32.53	4.11	25.39	260	0.12
47	7.74	33.58	2.62	50	7.65	33.69	2.45	26.32	172	0.16
66	6.77	33.92	2.02							

BROWN BEAR; April 30, 1954; 1702 GCT; 46°10'N, 124°18'W; sounding, 53 fm; wind, 140°, 7 kt; weather, partly cloudy; wire angle, missing. 56-12

0	8.74	29.55	6.61	0	8.74	29.55	6.61	22.92	495	0.00
10	8.26	31.66	6.73	10	8.26	31.66	6.73	24.64	331	0.04
20	8.15	31.78	6.01	20	8.15	31.78	6.01	24.75	321	0.07
30	7.92	32.43	4.49	30	7.92	32.43	4.49	25.29	269	0.10
50	7.70	-	2.96	50	7.70		2.96			
75	6.86	33.94	2.07	75	6.86	33.94	2.07	26.62	144	

BROWN BEAR; April 30, 1954; 2042 GCT; 45°48.5'N, 124°32.5'W; sounding, 87 fm; wind, 040°, 11 kt; weather, clear; wire angle, 08°. 56-13

0	9.66	28.82	7.77	0	9.66	28.82	7.77	22.22	562	0.00
10	8.92	31.36	7.13	10	8.92	31.36	7.13	24.31	363	0.05
20	8.52	31.58	7.08	20	8.52	31.58	7.08	24.54	341	0.08
30	8.49	31.92	6.46	30	8.49	31.92	6.46	24.81	315	0.11
50	8.36	32.48	6.31	50	8.36	32.48	6.31	25.27	272	0.17
74	8.12	32.68	5.38	75	8.13					
99	7.96	33.41	3.45	100	7.94					
138	6.49	-	-							

BROWN BEAR; May 1, 1954; 0459 GCT; 45°16'N, 124°15'W; sounding, 90 fm; wind, 020°, 18 kt; weather, clear; wire angle, 26°. 56-14

0	9.60	30.23	6.97	0	9.60	30.23	6.97	23.32	457	0.00
9	9.52	30.59	6.83	10	9.46	30.79	6.83	23.78	413	0.04
18	9.10	31.92	6.76	20	9.07	31.97	6.70	24.76	320	0.08
27	8.96	32.12	6.47	30	8.87	32.17	6.43	24.95	302	0.11
44	8.56	32.44	6.00	50	8.56	32.56	5.69	25.30	269	0.17
67	8.43	32.95	4.64	75	8.28	33.22	3.86	25.86	216	0.23
89	7.94	33.59	2.89	100	7.55	33.76	2.58	26.39	166	0.28
111	7.24	33.87	2.37							
134	6.84	33.93	2.27							

BROWN BEAR; May 1, 1954; 0731 GCT; 45°29.5'N, 124°15'W; sounding, 92 fm; wind, 020°, 14 kt; weather, clear; wire angle, 21°. 56-15

0	9.48	28.91	6.99	0	9.48	28.91	6.99	22.31	553	0.00
10	9.36	31.05	6.98	10	9.36	31.05	6.98	24.00	392	0.05
20	8.69	32.00	6.55	20	8.69	32.00	6.55	24.84	312	0.08
31	8.62	32.10	6.36	30	8.62	32.09	6.38	24.92	304	0.11
51	8.60	32.51	5.85	50	8.61	32.49	5.89	25.24	275	0.17
77	8.21	33.21	3.84	75	8.24	33.17	3.94	25.82	220	0.23
103	7.94	33.57	3.43	100	7.99					
154	6.22	-	-	150	6.41					

BROWN BEAR; May 1, 1954; 1020 GCT; 45°48.5'N, 124°17.5'W; sounding, 75 fm; wind, 020°, 12 kt; weather, clear; wire angle, 04°. 56-16

0	9.36	29.23	7.75	0	9.36	29.23	7.75	22.58	528	0.00
10	9.24	31.03	6.38	10	9.24	31.03	6.38	24.00	392	0.05
20	8.93	31.95	5.76	20	8.93	31.95	5.76	24.77	319	0.08
30	8.70	32.26	5.58	30	8.70	32.26	5.58	25.04	293	0.11
50	7.92	33.32	3.43	50	7.92	33.32	3.43	25.99	204	0.16
75	6.45	33.95	1.80	75	6.45	33.95	1.80	26.69	137	0.21
100	5.94	34.02	1.46	100	5.94	34.02	1.46	26.81	128	0.38
125	5.85	-	-							

UW

BB-56

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn. m

56-17 BROWN BEAR; May 1, 1954; 1230 GCT; 46°02'N, 124°15.5'W; sounding, 52 fm; wind, 070°, 8 kt; weather, clear; wire angle, 02°.

0	9.38	26.97	7.29	0	9.38	26.97	7.29	20.82	696	0.00
5	9.23	28.06	7.30	10	8.54	31.40	7.02	24.40	354	0.05
10	8.54	31.40	7.02	20	8.49	32.06	5.61	24.92	305	0.08
20	8.49	32.06	5.61	30	8.50	32.65	5.11	25.38	261	0.11
30	8.50	32.65	5.11	50	7.09	32.84	2.24	25.73	228	0.16
50	7.09	32.84	2.24	75	6.41	33.49	1.33	26.33	171	0.21
85	6.48	33.87	1.80							

56-18 BROWN BEAR; May 1, 1954; 1435 GCT; 46°11'N, 124°12.5'W; sounding, 34 fm; wind, 070°, 12 kt; weather, clear; wire angle, 02°.

0	8.95	27.38	6.36	0	8.95	27.38	6.36	21.20	660	0.00
5	8.95	28.06	6.07	10	8.70	31.56	5.08	24.50	345	0.05
10	8.70	31.56	5.08	20	8.21	33.11	3.61	25.78	223	0.08
20	8.21	33.11	3.61	30	7.74	33.62	2.72	26.25	178	0.10
30	7.74	33.62	2.72	50	7.32	33.81	2.33	26.46	160	0.21
50	7.32	33.81	2.33							
55	7.10	33.86	-							

56-19 BROWN BEAR; May 1, 1954; 1738 GCT; 46°23'N, 124°15.5'W; sounding, 32 fm; wind, 020°, 5 kt; weather, clear; wire angle, 06°.

0	9.20	26.74	0	9.20	26.74		20.67	711	0.00
5	8.74	31.08	10	8.62	31.92		24.79	317	0.05
10	8.62	31.92	20	8.52	32.01		24.88	308	0.08
15	8.60	31.98	30	7.76	32.27		25.19	279	0.11
20	8.52	32.01	50	7.75	33.39		26.07	196	0.16
25	8.18	32.18							
30	7.76	32.27							
50	7.75	33.39							

56-20 BROWN BEAR; May 1, 1954; 1902 GCT; 46°24.5'N, 124°15'W; sounding, 31 fm; wind, calm; weather, clear; wire angle, 04°, 01°.

0	9.07	31.80	0	9.07	31.80		24.63	332	0.00
			10	8.71	31.95		24.80	316	0.03
4	8.68	31.87	20	8.37	31.98		24.87	309	0.06
9	8.72	31.94	30	7.73	32.66		25.50	250	0.09
13	8.65	31.97							
17	8.52	32.00							
22	8.24	32.05							
26	7.93	32.37							
43	7.82	33.35							

56-21 BROWN BEAR; May 1, 1954; 2014 GCT; 46°18.5'N, 124°12.5'W; sounding, 24 fm; wind, 110°, 7 kt; weather, clear; wire angle, missing.

0	9.94	24.15	0	9.94	24.15		18.55	915	0.00
5	8.80	29.03	10	8.60	31.32		24.32	361	0.06
10	8.60	31.32	20	8.35	32.23		25.07	290	0.10
15	8.71	31.73	30	8.19	32.62		25.40	259	0.12
20	8.35	32.23							
25	8.23	32.41							
35	8.22	32.86							

56-22 BROWN BEAR; May 1, 1954; 2207 GCT; 46°15'N, 124°00'W; sounding, 71 fm; wind, 070°, 9 kt; weather, clear; wire angle, missing, missing.

0	11.34	14.41	0	11.34	14.41		10.81	1666	0.00
5	9.61	25.14	10	8.81	31.11		24.13	380	0.10
10	8.81	31.11	20	8.69	32.78		25.45	254	0.13
22	8.90	31.47							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
BROWN BEAR; May 2, 1954; 1743 GCT; 46°10.5'N, 124°27'W; sounding, 68 fm; wind, 140°, 9 kt; weather, cloudy; wire angle, 03°.										56-23
0	9.24	28.23	-	0	9.24	28.23		21.82	600	0.00
10	8.30	31.70	6.61	10	8.30	31.70	6.61	24.67	329	0.05
20	8.35	31.79	6.53	20	8.35	31.79	6.53	24.73	323	0.08
30	8.38	31.89	6.94	30	8.38	31.89	6.94	24.80	316	0.11
50	8.38	32.48	5.32	50	8.38	32.48	5.32	25.26	272	0.17
75	6.88	33.84	2.00	75	6.88	33.84	2.00	26.54	152	0.42
100	6.36	33.96	1.94	100	6.36	33.96	1.94	26.71	140	0.80
BROWN BEAR; May 2, 1954; 2034 GCT; 46°14.5'N, 124°50'W; sounding, 370 fm; wind, 220°, 14 kt; weather, overcast; wire angle, 13°, 17°.										56-24
0	9.62	30.94	6.57	0	9.62	30.94	6.57	23.87	404	0.00
10	9.57	30.99	6.61	10	9.57	30.99	6.61	23.92	400	0.04
19	9.14	31.58	6.92	20	9.09	31.63	6.89	24.49	345	0.08
29	8.74	32.03	6.62	30	8.72	32.06	6.60	24.88	308	0.11
				50	8.39	32.49	5.90	25.27	272	0.17
48	8.40	32.47	5.99	75	8.19	32.96	4.56	25.67	234	0.23
71	8.22	32.81	4.84	100	7.93	33.55	3.28	26.17	187	0.28
95	8.00	33.52	3.40	150	7.32	33.79	2.44	26.44	162	0.37
142	7.41	33.75	2.49	200	6.74	33.96	2.20	26.66	142	0.45
190	6.86	33.95	2.22	250	6.23	34.00	1.86	26.76	133	0.52
238	6.34	34.00	2.00	300	5.84	34.01	1.34	26.81	128	0.58
286	5.94	34.01	1.48	400	5.27	34.07	0.73	26.93	118	0.70
480	5.04	34.13	0.62							
BROWN BEAR; May 3, 1954; 0059 GCT; 46°26'N, 125°30'W; sounding, 1260 fm; wind, 140°, 17 kt; weather, overcast.										56-25
0a)	9.53	31.60	6.83	0	9.53	31.60	6.83	24.40	354	0.00
10	9.50	31.63	6.96	10	9.50	31.63	6.96	24.43	351	0.04
21	9.26	31.85	6.73	20	9.28	31.83	6.75	24.62	333	0.07
31	9.18	32.01	6.54	30	9.19	31.99	6.56	24.76	320	0.10
51	8.73	32.46	6.13	50	8.75	32.45	6.15	25.18	280	0.16
77	8.47	32.56	5.71	75	8.49	32.53	5.79	25.29	271	0.23
102	8.10	33.22	4.13	100	8.13	33.18	4.23	25.85	218	0.29
155	7.37	33.62	3.27	150	7.43	33.58	3.36	26.26	179	0.39
204	6.94	33.95	2.36	200	6.98	33.94	2.41	26.61	147	0.47
256	6.40	33.96	2.32	250	6.42	33.96	2.27	26.70	139	0.54
306	5.88	33.98	1.86	300	5.94	33.97	1.92	26.77	132	0.61
				400	5.38	34.05	1.13	26.90	121	0.74
249b)	6.40	33.95	2.20	500	4.93	34.13	0.60	27.02	111	0.85
290	6.05	33.95	2.00	600	4.57	34.21	0.41	27.12	101	0.96
				700	4.25	34.27	0.28	27.20	94	1.06
490c)	4.97	34.12	0.63	800	3.98	34.32	0.25	27.27	88	1.15
748	4.11	34.30	0.25	1000	3.52	34.41	0.31	27.39	78	1.32
1008	3.50	34.41	0.31	1200	3.08	34.47	0.45	27.48	70	1.46
1525	2.42	34.53	0.84	1500	2.47	34.53	0.81	27.58	60	1.66

a) Overlapping second cast; wire angle, 15°.
b) First cast; wire angle, 21°.
c) Third cast; wire angle, 23°.

OBSERVED				INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn. m
56-26	BROWN BEAR; May 3, 1954; 0806 GCT; 46°53'N, 125°59'W; sounding, 1420 fm; wind, 180°, 16 kt; weather, slight rain.									
0a)	9.28	31.93	6.66	0	9.28	31.93	6.66	24.70	326	0.00
10	9.27	31.90	6.65	10	9.27	31.90	6.65	24.67	328	0.03
21	9.30	32.01	6.62	20	9.32	32.00	6.63	24.74	321	0.06
32	8.78	32.11	6.48	30	8.86	32.09	6.51	24.89	308	0.10
52	8.45	32.31	6.45	50	8.48	32.29	6.47	25.10	288	0.16
79	8.10	32.68	5.58	75	8.13	32.61	5.79	25.40	260	0.22
105	8.06	33.31	3.40	100	8.08	33.20	3.76	25.87	215	0.28
159	7.55	-	-	150	7.64	33.65	2.86	26.29	177	0.38
210	6.94	33.92	2.39	200	7.07	33.88	2.40	26.55	152	0.46
263	6.46	33.95	2.03	250	6.58	33.94	2.11	26.66	142	0.54
315	6.05	33.98	1.68	300	6.16	33.97	1.78	26.74	135	0.61
				400	5.56	34.05	1.02	26.88	123	0.74
220b)	6.88	33.93	2.20	500	5.07	34.13	0.59	27.00	112	0.85
262	6.52	-	-	600	4.66	34.19	0.38	27.09	104	0.96
445	5.33	34.08	0.75	700	4.32	34.21	0.28	27.15	99	1.06
677	4.38	34.22	0.28	800	4.05	34.18	0.29	27.15	99	1.16
912	3.77	34.17	0.31	1000	3.56	34.18	0.34	27.20	95	1.36
1419	2.64	34.48	0.58	1200	3.10	34.28	0.44	27.32	84	1.54
56-27	BROWN BEAR; May 3, 1954; 1412 GCT; 47°35.5'N, 126°00'W; sounding, 780 fm; wind, 140°, 5 kt; weather, overcast.									
0c)	8.92	31.67	7.03	0	8.92	31.67	7.03	24.55	340	0.00
10	8.86	31.70	7.02	10	8.86	31.70	7.02	24.58	337	0.03
21	8.68	31.80	6.87	20	8.71	31.77	6.90	24.66	330	0.07
32	8.16	32.33	6.19	30	8.24	32.26	6.27	25.11	286	0.10
52	7.86	32.50	6.45	50	7.88	32.48	6.46	25.34	265	0.15
79	7.71	32.72	5.50	75	7.72	32.66	5.70	25.50	250	0.22
105	7.76	33.38	3.74	100	7.76	33.28	4.02	25.98	205	0.27
159	7.31	33.63	2.60	150	7.40	33.58	2.73	26.27	178	0.37
211	6.70	33.92	2.33	200	6.85	33.88	2.39	26.58	150	0.45
264	5.92	33.95	2.08	250	6.05	33.94	2.15	26.73	135	0.52
316	5.71	34.00	1.75	300	5.82	33.99	1.70	26.80	130	0.59
				400	5.27	34.05	1.09	26.91	120	0.71
256d)	5.96	33.95	2.07	500	4.79	34.11	0.65	27.02	110	0.83
306	5.86	34.00	1.46	600	4.45	34.18	0.41	27.11	102	0.93
516	4.72	34.12	0.59	700	4.15	34.25	0.27	27.20	94	1.03
778	3.93	34.30	0.20	800	3.88	34.31	0.20	27.27	88	1.12
1039	3.33	34.42	0.27	1000	3.41	34.41	0.25	27.40	76	1.29
1245	2.93	34.47	0.40	1200	3.01	34.46	0.37	27.48	70	1.43
56-28	BROWN BEAR; May 3, 1954; 1805 GCT; 47°52.5'N, 125°41'W; sounding, 460 fm; wind, 110°, 12 kt; weather, fog in patches.									
0e)	8.70	31.38	7.34	0	8.70	31.38	7.34	24.36	358	0.00
10	8.66	31.36	7.01	10	8.66	31.36	7.01	24.35	359	0.04
20	8.72	31.38	7.39	20	8.72	31.38	7.39	24.35	359	0.07
30	8.14	32.01	6.13	30	8.14	32.01	6.13	24.93	304	0.10
49	7.72	32.39	6.40	50	7.71	32.39	6.20	25.29	270	0.16
74	7.58	32.56	3.96	75	7.58	32.60	4.09	25.47	253	0.23
98	7.57	33.28	5.92	100	7.57	33.31	5.71	26.03	200	0.28
148	7.18	33.76	2.45	150	7.12	33.77	2.50	26.46	161	0.37
196	6.19	33.90	2.78	200	6.20	33.91	2.67	26.69	139	0.45
246	5.94	33.96	1.80	250	5.98	33.96	1.81	26.76	133	0.52
295	5.42	33.96	1.69	300	5.43	33.96	1.67	26.82	127	0.58
				400	4.99	34.06	0.94	26.95	115	0.70
240f)	6.23	33.97	1.85	500	4.60	34.15	0.46	27.07	105	0.81
287	5.52	33.94	1.80	600	4.27	34.22	0.22	27.16	97	0.91
481	4.67	34.13	0.54	700	3.98	34.28	0.24	27.24	90	1.01
725	3.92	34.29	0.27							

a) Overlapping second cast; wire angle, 10°.
b) First cast; wire angle, 24°.
c) Overlapping second cast; wire angle, 05°.
d) First cast; wire angle, 08°.
e) Overlapping second cast; wire angle, 04°.
f) First cast; wire angle, 08°.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

62-11

BROWN BEAR; June 23, 1954; 1119 GCT;[a] 48°56.5'N, 127°02'W; sounding, 635 fm; wind, 270°, 12 kt; weather, cloudy.

0b)	11.83	32.47	6.63	0	11.83	32.47	6.63	24.68	327	0.00
5	11.80	32.47	6.54	10	11.80	32.47	6.57	24.68	327	0.03
11	11.80	32.47	6.57	20	11.84	32.46	6.61	24.67	328	0.07
21	11.78	32.46	6.62	30	10.58	32.49	6.79	24.92	305	0.10
32	10.32	32.50	6.81	50	7.93	32.56	6.71	25.39	260	0.16
52	7.76	32.57	6.70	75	7.25	32.58	6.69	25.50	250	0.22
79	7.21	32.61	6.59	100	7.24	32.93	5.53	25.78	224	0.28
104	7.24	32.99	5.35	150	7.02	33.64	3.75	26.37	169	0.38
158	6.95	33.71	3.58	200	6.43	33.86	3.17	26.62	146	0.46
210	6.24	33.87	3.02	250	5.88	33.88	2.63	26.71	138	0.53
263	5.70	33.91	2.48	300	5.48	33.94	2.06	26.80	129	0.59
				400	5.04	34.04	1.22	26.93	118	0.72
197c)	6.50	33.86	3.21	500	4.66	34.12	0.66	27.04	108	0.83
246	5.95	33.87	2.68	600	4.35	34.16	0.52	27.10	102	0.93
295	5.50	33.93	2.11	700	4.07	34.21	0.41	27.17	96	1.03
495	4.68	34.12	0.67	800	3.82	34.27	0.35	27.25	90	1.13
754	3.93	34.24	0.37	1000	3.43	34.39	0.32	27.38	78	1.30
1016	3.41	34.40	0.34							

62-12

BROWN BEAR; June 23, 1954; 1922 GCT; 48°57'N, 127°53'W; sounding, 1350 fm; wind, 270°, 5 kt; weather, partly cloudy.

0d)	12.42	32.02	6.35	0	12.42	32.02	6.35	24.22	371	0.00
5	12.18	32.02	6.35	10	11.99	32.02	6.36	24.30	363	0.04
11	11.96	32.02	6.36	20	11.90	32.00	6.42	24.30	364	0.07
21	11.77	32.02	6.45	30	9.14	32.44	7.01	25.12	286	0.10
32	8.70	32.51	7.08	50	7.43	32.57	6.81	25.47	253	0.16
52	7.33	32.57	6.79	75	6.96	32.58	6.80	25.54	246	0.22
79	6.92	32.60	6.73	100	6.88	32.75	6.00	25.69	233	0.28
103	6.88	32.78	5.88	150	7.13	33.78	3.04	26.46	160	0.38
154	7.09	33.80	3.00	200	6.33	33.84	3.06	26.62	146	0.46
206	6.29	33.86	-	250	5.83	33.93	2.73	26.75	134	0.52
258	5.86	33.96	2.72	300	5.48	33.96	2.14	26.82	128	0.59
				400	4.91	34.02	1.19	26.93	117	0.71
171e)	6.84	33.76	3.25	500	4.61	34.10	0.78	27.03	109	0.82
211	6.15	33.87	3.00	600	4.34	34.17	0.52	27.11	102	0.93
251	5.74	33.92	2.68	700	4.07	34.25	0.35	27.20	94	1.03
415	4.84	34.03	1.08	800	3.81	34.33	0.25	27.29	86	1.12
638	4.24	34.20	0.44	1000	3.36	34.45	0.25	27.43	73	1.28
866	3.65	34.37	0.21	1200	2.95	34.51	0.35	27.52	65	1.41
1110	3.13	34.49	0.29							
1368	2.65	34.53	0.50							

a) Times reported are those of the messenger release of the first cast.
b) Overlapping second cast; wire angle, 10°.
c) First cast; wire angle, 20°.
d) Overlapping second cast; wire angle, 10°.
e) First cast; wire angle, 25°.

UW

BB-62

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O_2	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m
62-13	BROWN BEAR; June 24, 1954; 0248 GCT; 48°20'N, 127°51'W; sounding, 1370 fm; wind, 320°, 12 kt; weather, cloudy.									
0a)	12.48	32.02	6.36	0	12.48	32.02	6.36	24.21	372	0.00
5	12.46	32.01	6.36	10	12.36	32.05	6.32	24.26	368	0.04
10	12.36	32.05	6.32	20	12.18	32.32	6.52	24.50	345	0.07
20	12.18	32.32	6.52	30	10.60	32.50	6.79	24.92	305	0.10
30	10.60	32.50	6.79	50	8.32	32.67	6.75	25.42	257	0.16
49	8.38	32.68	6.74	75	7.28	32.61	6.79	25.52	248	0.22
74	7.30	32.61	6.80	100	6.97	32.75	6.22	25.67	234	0.28
99	6.97	32.72	6.27	150	6.96	33.67	4.02	26.40	166	0.38
152	6.95	33.69	3.95	200	6.44	33.86	3.01	26.62	146	0.46
205	6.38	33.87	2.98	250	5.75	33.91	3.06	26.74	134	0.53
258	5.70	33.91	2.99	300	5.48	33.96	2.31	26.82	128	0.60
				400	4.76	34.03	1.60	26.96	115	0.72
228b)	-	33.93	3.00	500	4.44	34.13	0.88	27.07	105	0.83
287	5.66	33.96	2.35	600	4.15	34.21	0.49	27.16	96	0.93
343	4.96	33.96	2.13	700	3.91	34.26	0.40	27.23	91	1.02
573	4.22	34.19	0.52	800	3.68	34.31	0.35	27.29	86	1.11
860	3.55	34.34	0.32	1000	3.26	34.40	0.28	27.40	76	1.27
1148	2.98	34.45	0.31	1200	2.89	34.46	0.35	27.49	68	1.42
1449	2.49	34.52	0.59	1500	2.42	34.53	0.67	27.58	59	1.61
1752	2.09	34.58	1.15							
62-14	BROWN BEAR; June 24, 1954; 1035 GCT; 48°21'N, 127°03'W; sounding, 1420 fm; wind, 320°, 12 kt; weather, partly cloudy.									
0c)	12.46	32.38	6.41	0	12.46	32.38	6.41	24.49	345	0.00
5	12.44	32.38	6.53	10	12.46	32.38	6.41	24.49	345	0.04
11	12.42	32.38	6.41	20	11.31	32.34	6.83	24.67	328	0.07
21	11.12	32.35	6.85	30	8.74	32.53	6.84	25.25	274	0.10
31	8.55	32.54	6.84	50	7.88	32.60	6.91	25.43	256	0.15
52	7.82	32.60	6.91	75	7.38	32.59	6.78	25.49	251	0.22
78	7.34	32.60	6.74	100	7.14	32.69	6.34	25.60	240	0.28
104	7.12	32.72	6.23	150	7.20	33.60	3.95	26.31	174	0.38
157	7.16	33.68	3.75	200	6.41	33.85	3.39	26.61	146	0.46
209	6.38	33.86	3.42	250	6.06	33.78	3.19	26.60	148	0.53
261	5.88	33.90	3.11	300	5.54	33.88	2.97	26.75	134	0.60
				400	4.99	34.01	1.89	26.91	119	0.73
226d)	6.45	-	3.54	500	4.58	34.10	0.95	27.03	109	0.84
268	5.86	33.66	2.99	600	4.25	34.18	0.57	27.13	100	0.95
322	5.36	33.93	2.88	700	3.98	34.25	0.40	27.21	92	1.04
537	4.44	34.13	0.69	800	3.74	34.31	0.29	27.29	86	1.13
811	3.72	34.32	0.28	1000	3.40	34.38	0.24	27.38	79	1.30
				1200	3.04	34.45	0.34	27.46	71	1.45
1139e)	3.16	34.43	0.28	1500	2.51	34.53	0.74	27.58	60	1.64
1438	2.61	34.52	0.64							
1742	2.16	34.58	1.24							

a) Overlapping second cast; wire angle, 18°.
b) First cast; wire angle, 21°.
c) Overlapping third cast; wire angle, 12°.
d) First cast; wire angle, 26°.
e) Second cast; wire angle, 27°.

OBSERVED					INTERPOLATED					COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m	
BROWN BEAR; August 5, 1954; 2307 GCT;[a] 52°02'N, 131°12.5'W; sounding, 130 fm; wind, 250°, 12 kt; weather, cloudy; wire angle, 17°.													64-1
0	11.57	32.38	6.62	0.53	0	11.57	32.38	6.62	0.53	24.66	329	0.00	
10	11.44	32.37	6.53	0.90	10	11.44	32.37	6.53	0.90	24.67	328	0.03	
19	11.06	32.40	6.53	0.49	20	10.97	32.40	6.48	0.56	24.78	318	0.06	
29	10.36	32.41	6.17	1.07	30	10.37	32.41	6.16	1.07	24.89	308	0.10	
48	10.03	32.44	5.88	1.18	50	9.85	32.46	5.78	1.22	25.02	296	0.16	
72	8.20	32.61	5.15	1.54	75	8.02	32.62	5.21	1.53	25.43	257	0.22	
96	7.00	32.72	5.33	1.55	100	6.86	32.75	5.31	1.57	25.69	232	0.29	
144	6.50	33.28	4.08	2.14									
BROWN BEAR; August 6, 1954; 0252 GCT; 52°02'N, 131°30.5'W; sounding, 850 fm; wind, 250°, 5 kt; weather, overcast.													64-2
0b)	12.25	32.25	6.71	0.72	0	12.25	32.25	6.71	0.72	24.43	351	0.00	
9	11.56	32.22	6.65	0.80	10	11.49	32.23	6.59	0.81	24.56	339	0.04	
18	10.94	32.27	6.19	0.89	20	10.83	32.27	6.15	0.92	24.70	325	0.07	
27	10.42	32.29	6.01	1.05	30	10.16	32.32	5.97	1.12	24.86	311	0.10	
44	9.18	32.44	5.69	1.40	50	8.97	32.48	5.49	1.47	25.17	281	0.16	
66	8.40	32.60	5.03	1.60	75	8.06	32.69	4.82	1.61	25.47	253	0.23	
89	7.60	32.83	4.56	1.63	100	7.29	32.94	4.63	1.63	25.78	224	0.29	
132	6.64	33.26	4.41	1.75	150	6.55	33.47	3.68	1.99	26.30	176	0.39	
176	6.41	33.70	3.18	2.22	200	6.22	33.82	3.16	2.32	26.61	146	0.47	
264	5.60	33.93	2.28	2.42	250	5.69	33.90	2.51	2.39	26.74	134	0.54	
					300	5.44	34.00	1.81	2.49	26.85	124	0.60	
195c)	6.29	33.82	3.21	2.31	400	4.96	34.05	1.31	2.65	26.95	116	0.72	
287	5.51	33.99	1.89	2.47	500	4.62	34.12	0.91	2.83	27.04	108	0.83	
478	4.66	34.10	-	2.77	600	4.41	34.18	0.60	3.05	27.11	102	0.94	
716	4.16	34.24	0.39	3.16	700	4.20	34.23	0.41	3.15	27.18	96	1.04	
957	3.58	34.33	0.39	2.91	800	3.95	34.27	0.39	3.04	27.23	92	1.13	
1248	2.98	34.44	0.39	2.99	1000	3.48	34.35	0.39	2.90	27.34	82	1.30	
					1200	3.07	34.42	0.39	2.95	27.44	73	1.46	
BROWN BEAR; August 6, 1954; 0802 GCT; 52°00'N, 131°50.5'W; sounding, 1360 fm; wind, 220°, 3 kt; weather, intermittent slight drizzle.													64-3
0d)	12.23	32.22	6.47	0.88	0	12.23	32.22	6.47	0.88	24.41	353	0.00	
9	11.67	32.21	6.54	0.93	10	11.55	32.21	6.48	0.95	24.53	342	0.04	
18	10.79	32.21	6.12	1.03	20	10.67	32.23	6.05	1.01	24.70	326	0.07	
27	10.28	32.28	5.82	0.99	30	10.16	32.29	5.77	1.06	24.83	313	0.10	
46	9.62	32.36	5.50	1.32	50	9.56	32.37	5.45	1.35	24.99	298	0.16	
69	9.20	32.42	5.25	1.43	75	9.07	32.44	5.21	1.39	25.13	286	0.23	
91	8.66	32.54	5.00	1.35	100	8.26	32.67	4.75	1.44	25.43	257	0.30	
137	7.00	33.17	3.76	1.86	150	6.76	33.37	3.38	2.08	26.19	186	0.41	
183	6.26	33.75	2.70	2.56	200	6.11	33.81	2.48	2.46	26.62	145	0.50	
273	5.68	33.94	1.96	2.37	250	5.77	33.91	2.12	2.42	26.74	134	0.57	
					300	5.48	33.98	1.75	2.50	26.83	126	0.63	
184e)	6.20	33.79	2.48	2.40	400	5.00	34.06	1.09	2.74	26.95	116	0.75	
276	5.56	33.96	1.93	2.47	500	4.65	34.13	0.71	2.90	27.05	107	0.86	
464	4.74	34.11	0.77	2.86	600	4.40	34.18	0.54	3.00	27.11	102	0.97	
708	4.13	34.23	0.40	3.05	700	4.15	34.23	0.41	3.05	27.18	96	1.07	
951	3.55	34.36	0.30	2.99	800	3.89	34.29	0.35	3.02	27.26	89	1.16	
1240	3.06	34.42	0.37	2.98	1000	3.45	34.38	0.30	2.98	27.37	79	1.33	
					1200	3.11	34.42	0.35	2.98	27.43	74	1.48	

a) Times reported are those of the messenger release of the first cast.
b) Overlapping second cast; wire angle, 20°.
c) First cast; wire angle, 05°.
d) Overlapping second cast; wire angle, 16°.
e) First cast; wire angle, 19°.

UW BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	10^{-5} cm^3/g	dyn m
64-4	BROWN BEAR; August 6, 1954; 1713 GCT; 52°00'N, 133°04'W; sounding, 1450 fm; wind, 220°, 10 kt; weather, precipitation within sight.											
0a)	13.70	32.22	6.25	0.50	0	13.70	32.22	6.25	0.50	24.12	380	0.00
10	13.63	32.21	6.24	0.87	10	13.63	32.21	6.24	0.87	24.13	380	0.04
20	12.16	32.20	6.75	0.96	20	12.16	32.20	6.75	0.96	24.41	353	0.08
29	10.20	32.28	6.57	0.94	30	10.04	32.29	6.53	0.97	24.85	311	0.11
49	7.88	32.48	5.78	1.41	50	7.86	32.49	5.72	1.42	25.35	264	0.17
73	7.27	32.74	4.87	1.63	75	7.18	32.76	4.88	1.63	25.65	236	0.23
98	6.44	32.96	4.82	1.69	100	6.46	32.99	4.77	1.69	25.93	210	0.28
146	6.52	33.48	3.67	1.95	150	6.48	33.51	3.56	2.02	26.34	172	0.38
195	6.02	33.80	2.60	2.64	200	5.94	33.81	2.49	2.65	26.64	143	0.46
293	5.00	34.01	1.50	2.97	250	5.36	33.92	1.88	2.83	26.80	129	0.53
					300	4.95	34.00	1.42	2.95	26.91	118	0.59
190b)	6.06	33.78	2.60	2.60	400	4.51	34.08	0.90	3.01	27.02	108	0.70
285	5.01	33.97	1.48	2.91	500	4.20	34.16	0.58	3.10	27.12	100	0.80
475	4.25	34.14	0.62	3.06	600	3.98	34.21	0.46	3.22	27.18	95	0.90
711	3.75	34.27	0.36	3.29	700	3.77	34.26	0.37	3.29	27.24	89	0.99
963	3.26	34.37	0.30	3.22	800	3.56	34.31	0.32	3.25	27.30	84	1.08
1252	2.86	34.43	0.40	3.34	1000	3.20	34.38	0.30	3.22	27.39	76	1.24
					1200	2.92	34.42	0.37	3.30	27.45	72	1.39
64-5	BROWN BEAR; August 7, 1954; 1353 GCT; 52°02'N, 134°30.5'W; sounding, 1680 fm; wind, 360°, 12 kt; weather, cloudy.											
0c)	13.46	32.10	6.29	0.64	0	13.46	32.10	6.29	0.64	24.08	384	0.00
10	13.45	32.10	6.35	0.66	10	13.45	32.10	6.35	0.66	24.08	384	0.04
20	11.84	32.21	6.79	0.67	20	11.84	32.21	6.79	0.67	24.48	347	0.08
29	9.83	32.24	6.62	0.88	30	9.69	32.26	6.59	0.91	24.89	308	0.11
49	7.50	32.57	6.20	1.34	50	7.42	32.57	6.23	1.35	25.47	252	0.16
74	6.26	32.71	6.28	1.58	75	6.26	32.72	6.25	1.59	25.74	227	0.22
98	6.39	32.95	5.33	1.77	100	6.42	32.99	5.21	1.80	25.94	209	0.28
147	6.82	33.69	3.16	2.32	150	6.80	33.71	3.12	2.32	26.45	161	0.37
196	6.44	33.89	2.73	2.43	200	6.39	33.88	2.68	2.33	26.64	144	0.45
294	5.54	33.94	2.13	2.69	250	5.90	33.91	2.39	2.52	26.73	136	0.52
					300	5.49	33.95	2.07	2.64	26.81	128	0.58
191d)	6.46	33.87	2.70	2.16	400	4.96	34.02	1.36	2.68	26.93	118	0.70
290	5.54	33.95	2.15	2.60	500	4.53	34.09	0.86	2.80	27.03	109	0.82
484	4.58	34.08	0.91	2.76	600	4.23	34.17	0.62	3.03	27.12	100	0.92
728	3.87	34.25	0.41	3.18	700	3.95	34.23	0.45	3.16	27.20	94	1.02
972	3.24	34.38	0.35	3.07	800	3.67	34.29	0.38	3.12	27.28	87	1.11
1264	2.72	34.47	0.39	3.23	1000	3.18	34.39	0.35	3.07	27.40	75	1.27
					1200	2.81	34.46	0.37	3.17	27.49	67	1.42

a) Overlapping second cast; wire angle, 00°.
b) First cast; wire angle, 12°.
c) Overlapping second cast; wire angle, 03°.
d) First cast; wire angle, 07°.

OBSERVED					INTERPOLATED					COMPUTED			UW
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD	BB-64
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	$10^5 cm^3/g$	dyn m	
BROWN BEAR; August 8, 1954; 0058 GCT; 51°42'N, 135°29'W; sounding, 1870 fm; wind, 290°, 13 kt; weather, intermittent moderate rain.													64-6
0a)	13.78	32.43	6.36	0.86	0	13.78	32.43	6.36	0.86	24.27	366	0.00	
10	13.73	32.43	6.29	0.84	10	13.73	32.43	6.29	0.84	24.28	366	0.04	
20	12.17	32.44	6.79	0.88	20	12.17	32.44	6.79	0.88	24.59	336	0.07	
29	7.62	32.61	7.12	1.24	30	7.48	32.61	7.12	1.26	25.50	250	0.10	
49	5.65	32.71	6.94	1.54	50	5.63	32.71	6.94	1.53	25.81	220	0.15	
73	5.36	32.85	6.36	1.62	75	5.40	32.89	6.18	1.68	25.98	204	0.20	
98	5.68	33.31	4.48	2.22	100	5.68	33.34	4.39	2.21	26.30	174	0.25	
146	5.49	33.82	2.91	2.19	150	5.46	33.83	2.87	2.25	26.72	135	0.32	
195	5.15	33.89	2.34	2.83	200	5.13	33.89	2.26	2.77	26.80	128	0.39	
293	4.67	34.02	1.28	3.06	250	4.87	33.96	1.67	2.90	26.89	120	0.45	
					300	4.67	34.01	1.24	2.97	26.95	114	0.51	
189b)	5.19	33.86	2.40	2.66	400	4.37	34.08	0.84	2.93	27.04	107	0.62	
285	4.74	33.97	1.33	2.91	500	4.10	34.14	0.57	2.99	27.11	100	0.73	
479	4.15	34.13	0.60	2.95	600	3.86	34.21	0.44	3.14	27.19	93	0.82	
721	3.59	34.28	0.34	3.24	700	3.63	34.27	0.35	3.23	27.27	87	0.91	
961	3.14	34.39	0.35	3.20	800	3.44	34.32	0.32	3.22	27.32	82	1.00	
1252	2.62	34.46	0.52	3.21	1000	3.07	34.40	0.36	3.20	27.42	73	1.15	
					1200	2.71	34.45	0.47	3.20	27.49	67	1.29	
BROWN BEAR; August 8, 1954; 1642 GCT; 51°41'N, 137°11.5'W; sounding, 1950 fm; wind, 320°, 16 kt; weather, cloudy.													64-7
0c)	13.73	32.37	6.29	0.71	0	13.73	32.37	6.29	0.71	24.23	370	0.00	
10	13.70	32.33	6.28	0.76	10	13.70	32.33	6.28	0.76	24.21	372	0.04	
19	13.13	32.36	6.56	0.75	20	12.79	32.37	6.60	0.78	24.42	352	0.07	
29	10.06	32.46	6.79	1.01	30	9.77	32.47	6.76	1.04	25.04	294	0.10	
48	6.10	32.60	6.47	1.48	50	6.04	32.60	6.54	1.49	25.68	233	0.16	
72	5.64	32.76	6.47	1.62	75	5.67	32.82	6.24	1.63	25.89	212	0.21	
96	5.79	33.17	4.84	1.73	100	5.78	33.24	4.66	1.76	26.21	183	0.26	
144	5.62	33.78	2.98	2.06	150	5.58	33.80	2.91	2.11	26.68	139	0.34	
192	5.32	33.91	2.53	2.32	200	5.27	33.92	2.36	2.47	26.81	127	0.41	
288	4.77	33.96	1.55	2.82	250	4.99	33.94	1.86	2.67	26.86	123	0.47	
					300	4.76	33.97	1.44	2.81	26.91	118	0.53	
193d)	5.33	33.94	2.37	2.57	400	4.46	34.08	0.88	2.96	27.03	108	0.64	
289	4.83	33.95	1.50	2.76	500	4.17	34.16	0.55	3.08	27.12	100	0.75	
482	4.22	34.15	0.57	3.05	600	3.88	34.24	0.44	3.18	27.22	91	0.84	
723	3.56	34.31	0.36	3.17	700	3.62	34.30	0.37	3.18	27.29	85	0.93	
967	3.09	34.41	0.39	3.12	800	3.31	34.33	0.37	2.83	27.34	80	1.01	
1456	2.33	34.52	0.77	3.08	1000	2.99	34.42	0.39	3.07	27.45	71	1.16	
					1200	2.55	34.47	0.46	2.91	27.52	64	1.30	
913e)	3.11	34.38	0.38	2.87	1500	2.25	34.53	0.82	3.07	27.60	58	1.48	
1386	2.35	34.51	0.66	2.99	2000	1.78	34.64	1.42	2.90	27.72	46	1.74	
1859	1.91	34.62	1.24	2.97	2500	1.66	34.67	2.04	2.59	27.76	44	1.96	
2332	1.70	34.66	1.84	2.71									
2810	1.58	34.67	2.40	2.35									

a) Overlapping second cast; wire angle, 00°.
b) First cast; wire angle, 11°.
c) Overlapping second cast; wire angle, 10°.
d) Overlapping third cast; wire angle, 08°.
e) First cast; wire angle, 20°.

UW

BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m
64-8	BROWN BEAR; August 9, 1954; 0721 GCT; 53°09'N, 137°11'W; sounding, 1850 fm; wind, 340°, 15 kt; weather, slight drizzle.											
0a)	13.26	32.33	6.54	0.65	0	13.26	32.33	6.54	0.65	24.30	364	0.00
10	13.28	32.33	6.50	0.71	10	13.28	32.33	6.50	0.71	24.29	364	0.04
20	11.22	32.39	6.81	0.83	20	11.22	32.39	6.81	0.83	24.73	323	0.07
29	8.85	32.46	6.52	1.16	30	8.68	32.47	6.52	1.18	25.21	277	0.10
49	6.37	32.68	6.44	1.41	50	6.33	32.68	6.44	1.42	25.70	230	0.15
73	5.84	32.82	6.05	1.52	75	5.87	32.86	5.90	1.53	25.90	212	0.21
98	6.09	33.23	4.48	1.61	100	6.09	33.26	4.41	1.61	26.19	185	0.26
146	5.95	33.72	3.16	1.77	150	5.89	33.74	3.11	1.84	26.59	147	0.34
195	5.29	33.86	2.56	2.58	200	5.28	33.88	2.50	2.46	26.78	130	0.41
292	4.84	33.96	1.44	2.72	250	5.01	33.92	1.89	2.61	26.84	124	0.47
					300	4.78	33.97	1.43	2.74	26.91	119	0.53
191b)	5.34	33.88	2.61	2.29	400	4.40	34.08	0.91	2.94	27.03	107	0.65
287	4.79	33.95	1.57	2.72	500	4.11	34.16	0.59	3.04	27.13	99	0.75
470	4.18	34.14	0.64	3.03	600	3.89	34.23	0.46	3.07	27.21	92	0.84
710	3.66	34.29	0.36	3.09	700	3.68	34.29	0.37	3.09	27.28	86	0.93
949	3.22	34.37	0.32	3.09	800	3.50	34.32	0.32	3.09	27.32	83	1.02
1237	2.67	34.46	0.52	3.11	1000	3.12	34.39	0.34	3.09	27.41	75	1.18
					1200	2.74	34.45	0.48	3.11	27.49	67	1.32
64-9	BROWN BEAR; August 10, 1954; 0044 GCT; 54°12'N, 137°06'W; sounding, 1623 fm; wind, 220°, 12 kt; weather, distant precipitation.											
0c)	13.36	32.22	6.62	0.58	0	13.36	32.22	6.62	0.58	24.19	374	0.00
9	13.06	32.23	6.72	0.60	10	12.81	32.25	6.75	0.62	24.32	361	0.04
19	10.92	32.35	6.88	0.82	20	10.77	32.35	6.87	0.84	24.78	318	0.07
28	9.60	32.40	6.75	1.02	30	9.25	32.43	6.70	1.07	25.09	289	0.10
46	7.10	32.61	6.44	1.35	50	6.82	32.63	6.51	1.40	25.60	240	0.15
69	5.95	32.74	6.51	1.51	75	5.97	32.79	6.31	1.45	25.83	218	0.21
93	6.00	32.95	5.68	1.37	100	6.02	33.06	5.33	1.48	26.04	199	0.26
139	5.97	33.56	3.76	1.99	150	5.84	33.64	3.51	2.11	26.52	154	0.35
187	5.44	33.85	2.78	2.48	200	5.40	33.88	2.53	2.47	26.76	131	0.42
282	4.95	33.96	1.62	2.78	250	5.13	33.94	1.87	2.59	26.84	124	0.49
					300	4.91	33.99	1.40	2.62	26.91	119	0.55
187d)	5.53	33.86	2.69	2.38	400	4.55	34.09	0.86	2.54	27.03	108	0.66
280	5.02	33.98	1.41	2.50	500	4.25	34.18	0.47	2.52	27.13	99	0.76
467	4.34	34.15	0.58	2.52	600	3.98	34.24	0.20	2.53	27.21	92	0.86
702	3.74	-	-	-	700	3.74	34.29	0.08	2.60	27.27	87	0.95
					800	3.53	34.33	0.09	2.70	27.32	82	1.04
937e)	3.28	34.35	0.32	2.93								

a) Overlapping second cast; wire angle, 07°.
b) First cast; wire angle, 22°.
c) Overlapping second cast; wire angle, 20°.
d) First cast; wire angle, 18°.
e) Third cast; wire angle, 30°.

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	10^{-5} cm^3/g	dyn m
BROWN BEAR; August 10, 1954; 1454 GCT; 54°14'N, 139°34'W; sounding, 1810 fm; wind, 320°, 1 kt; weather, slight drizzle.												64-10
0a)	14.11	32.25	6.23	0.71	0	14.11	32.25	6.23	0.71	24.06	386	0.00
10	14.10	32.26	6.25	0.65	10	14.10	32.26	6.25	0.64	24.07	385	0.04
20	11.54	32.42	6.72	0.93	20	11.54	32.42	6.72	0.93	24.69	326	0.08
29	7.60	32.52	7.01	1.28	30	7.46	32.53	6.99	1.29	25.44	256	0.10
49	5.55	32.70	6.69	1.40	50	5.52	32.70	6.69	1.41	25.82	220	0.15
73	5.02	32.85	6.44	1.56	75	4.99	32.86	6.35	1.54	26.00	202	0.20
98	4.86	33.08	5.71	1.43	100	4.93	33.12	5.85	1.42	26.22	182	0.25
146	5.78	33.78	6.52	1.58	150	5.73	33.79	6.07	1.69	26.65	142	0.33
195	5.30	33.89	2.34	2.58	200	5.21	33.89	2.24	2.60	26.79	128	0.40
292	4.62	33.94	1.57	2.77	250	4.84	33.93	1.79	2.73	26.87	122	0.46
					300	4.57	33.94	1.64	2.83	26.91	119	0.52
193b)	5.22	33.89	2.26	2.57	400	4.32	33.90	2.11	2.94	26.90	120	0.64
289	4.59	33.94	1.57	2.87	500	4.08	33.89	2.21	2.99	26.92	119	0.76
482	4.12	33.89	2.26	2.99	600	3.84	33.91	1.90	2.96	26.96	115	0.88
725	3.58	33.96	1.50	2.89	700	3.63	33.95	1.59	2.91	27.01	111	0.99
968	3.16	34.13	0.62	2.63	800	3.45	34.00	1.14	2.83	27.07	106	1.10
1260	2.64	34.47	0.57	2.12	1000	3.10	34.16	0.56	2.58	27.23	92	1.30
					1200	2.75	34.39	0.49	2.24	27.44	72	1.46
BROWN BEAR; August 11, 1954; 0243 GCT; 54°08.5'N, 141°15'W; sounding, 2000 fm; wind, 250°, 8 kt; weather, cloudy.												64-11
0c)	14.47	32.38	6.26	0.69	0	14.47	32.38	6.26	0.69	24.09	384	0.00
10	14.52	32.40	6.26	0.56	10	14.52	32.40	6.26	0.56	24.09	383	0.04
19	12.28	32.30	6.80	0.71	20	11.49	32.31	6.75	0.78	24.62	334	0.07
29	6.14	32.42	6.46	1.26	30	6.11	32.43	6.48	1.28	25.53	246	0.10
49	5.59	32.66	6.61	1.58	50	5.55	32.67	6.60	1.59	25.79	222	0.15
73	5.01	32.86	6.06	1.76	75	5.02	32.88	5.97	1.77	26.02	201	0.20
97	5.14	33.13	5.00	1.89	100	5.22	33.19	4.79	1.92	26.24	180	0.25
146	5.83	33.78	2.71	2.30	150	5.82	33.80	2.64	2.32	26.65	142	0.33
195	5.44	33.87	2.34	2.56	200	5.39	33.88	2.25	2.55	26.76	131	0.40
292	4.60	33.95	1.53	2.78	250	4.92	33.94	1.66	2.60	26.87	122	0.46
					300	4.58	33.96	1.48	2.77	26.92	117	0.52
181d)	5.60	33.88	2.35	2.49	400	4.36	34.05	0.86	2.70	27.02	109	0.64
270	4.76	33.95	1.56	2.67	500	4.10	34.13	0.65	2.72	27.11	101	0.74
458	4.22	34.10	0.63	2.69	600	3.84	34.20	0.67	2.80	27.19	94	0.84
691	3.62	34.25	0.65	2.87	700	3.60	34.25	0.64	2.88	27.25	88	0.93
930	3.16	34.34	0.44	3.02	800	3.40	34.29	0.52	2.95	27.30	84	1.01
1218	2.69	34.45	0.57	3.11	1000	3.04	34.37	0.47	3.06	27.40	75	1.17
					1200	2.72	34.45	0.56	3.11	27.49	67	1.32
1500e)	2.34	34.48	0.69	2.99	1500	2.34	34.48	0.69	2.99	27.55	61	1.39

a) Overlapping second cast; wire angle, 00°.
b) First cast; wire angle, 05°.
c) Overlapping third cast; wire angle, 00°.
d) Second cast; wire angle, 22°.
e) First cast; wire angle, 02°.

UW

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OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m
64-12	BROWN BEAR; August 11, 1954; 1220 GCT; 53°16'N, 141°02.5'W; sounding, 2000 fm; wind, 220°, 9 kt; weather, slight drizzle.											
0a)	13.86	32.34	6.20	0.68	0	13.86	32.34	6.20	0.68	24.18	374	0.00
10	13.86	32.32	6.22	0.75	10	13.86	32.32	6.22	0.75	24.17	376	0.04
19	13.56	32.37	6.33	0.79	20	12.66	32.39	6.45	0.84	24.46	348	0.07
29	6.50	32.54	7.20	1.21	30	6.44	32.54	7.17	1.22	25.58	242	0.10
49	5.56	32.66	6.72	1.40	50	5.53	32.67	6.73	1.41	25.79	222	0.15
73	5.01	32.86	6.62	1.60	75	4.98	32.86	6.59	1.59	26.01	202	0.20
97	4.83	32.98	5.96	1.52	100	4.95	33.04	5.70	1.54	26.15	188	0.25
146	5.98	33.69	2.93	1.91	150	5.94	33.71	2.89	1.97	26.56	150	0.34
195	5.51	33.86	2.48	2.51	200	5.47	33.87	2.37	2.52	26.75	133	0.41
292	4.62	33.96	1.57	2.48	250	5.00	33.92	1.92	2.56	26.84	124	0.47
					300	4.67	33.97	1.51	2.62	26.92	117	0.53
195b)	5.54	33.87	2.39	2.52	400	4.42	34.07	0.95	2.81	27.02	108	0.64
292	4.76	33.95	1.58	2.71	500	4.16	34.15	0.59	2.95	27.12	100	0.75
486	4.20	34.14	0.62	2.94	600	3.87	34.22	0.45	3.04	27.20	93	0.84
729	3.54	34.30	0.36	3.12	700	3.61	34.28	0.37	3.10	27.28	86	0.93
973	3.02	34.40	0.45	3.19	800	3.37	34.33	0.38	3.15	27.34	81	1.02
1264	2.62	34.48	0.59	3.18	1000	2.97	34.41	0.46	3.19	27.44	72	1.17
					1200	2.69	34.47	0.56	3.19	27.51	65	1.31
64-13	BROWN BEAR; August 12, 1954; 0115 GCT; 52°04.5'N, 140°50'W; sounding, 1990 fm; wind, 200°, 10 kt; weather, fog.											
0c)	13.72	32.75	6.26	1.24	0	13.72	32.75	6.26	1.24	24.53	342	0.00
10	13.68	32.74	6.28	1.27	10	13.68	32.74	6.28	1.27	24.53	342	0.03
19	10.38	32.78	6.81	1.26	20	10.20	32.78	6.83	1.26	25.21	277	0.06
29	8.58	32.79	6.99	1.29	30	8.36	32.79	7.00	1.31	25.51	249	0.09
48	5.40	32.84	7.12	1.58	50	5.33	32.84	7.11	1.57	25.95	207	0.14
73	4.64	32.88	7.06	1.59	75	4.57	32.87	7.09	1.62	26.06	197	0.19
96	4.16	32.90	7.02	1.89	100	4.30	32.99	6.62	1.91	26.18	185	0.24
146	5.23	33.72	3.35	2.18	150	5.19	33.73	3.28	2.22	26.67	140	0.32
194	4.84	33.82	2.67	2.58	200	4.82	33.84	2.52	2.51	26.80	128	0.38
290	4.46	33.96	1.34	2.46	250	4.62	33.91	1.81	2.54	26.88	121	0.44
					300	4.45	33.97	1.32	2.60	26.94	115	0.50
187d)	4.89	33.83	2.72	2.44	400	4.17	34.07	0.85	2.74	27.05	105	0.61
282	4.52	33.96	1.46	2.68	500	3.93	34.16	0.60	2.81	27.15	97	0.72
468	4.00	34.13	0.63	2.81	600	3.71	34.23	0.54	2.81	27.23	90	0.81
704	3.48	34.29	0.49	2.81	700	3.49	34.29	0.49	2.81	27.29	84	0.90
941	2.98	34.38	0.45	2.83	800	3.26	34.33	0.46	2.81	27.35	79	0.98
1228	2.60	34.47	0.52	2.99	1000	2.88	34.40	0.45	2.85	27.44	71	1.13
					1200	2.63	34.46	0.50	2.97	27.51	65	1.27

a) Overlapping second cast; wire angle, 00°.
b) First cast; wire angle, 00°.
c) Overlapping second cast; wire angle, 10°.
d) First cast; wire angle, 20°.

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ $10^{-5}cm^3/g$	ΔD dyn m
BROWN BEAR; August 12, 1954; 2032 GCT; 51°57.5'N, 143°15'W; sounding, 2020 fm; wind, 220°, 12 kt; weather, fog.												64-14
0a)	13.46	32.75	6.28	1.15	0	13.46	32.75	6.28	1.15	24.58	336	0.00
9	13.40	32.76	6.27	1.32	10	13.46	32.76	6.27	1.31	24.59	336	0.03
18	13.06	32.77	6.42	1.29	20	12.51	32.78	6.54	1.31	24.79	317	0.07
28	10.42	32.81	6.93	1.41	30	9.85	32.82	6.99	1.44	25.30	269	0.10
46	6.30	32.86	7.28	1.63	50	5.88	32.87	7.26	1.66	25.91	211	0.14
69	4.44	32.91	7.17	1.76	75	4.29	32.91	7.20	1.75	26.12	191	0.19
92	3.94	32.95	7.11	1.72	100	3.80	32.97	7.11	1.60	26.22	182	0.24
138	3.68	33.29	5.57	1.78	150	3.93	33.53	4.18	2.24	26.65	141	0.32
184	4.03	33.80	2.54	2.71	200	3.99	33.84	2.37	2.65	26.89	119	0.39
277	3.88	33.95	1.11	3.08	250	3.91	33.93	1.65	2.79	26.97	112	0.44
					300	3.88	33.97	1.02	3.05	27.00	109	0.50
163b)	4.08	33.70	3.15	2.56	400	3.84	34.06	0.71	2.94	27.08	103	0.61
250	3.91	33.93	1.65	2.79	500	3.79	34.12	0.62	3.04	27.13	98	0.71
431	3.82	34.08	0.63	2.92	600	3.69	34.19	0.59	3.12	27.20	93	0.80
765	3.41	34.29	0.50	3.02	700	3.54	34.25	0.55	3.10	27.26	88	0.89
901	3.06	34.37	0.39	2.71	800	3.31	34.31	0.46	2.91	27.33	81	0.98
1188	2.58	34.44	0.55	3.16	1000	2.85	34.41	0.38	2.70	27.45	70	1.13
BROWN BEAR; August 13, 1954; 1253 GCT; 51°55.5'N, 145°20'W; sounding, 2100 fm; wind, 200°, 16 kt; weather, fog.												64-15
0c)	13.06	32.80	6.37	1.30	0	13.06	32.80	6.37	1.30	24.70	325	0.00
10	13.06	32.78	6.28	1.29	10	13.06	32.78	6.28	1.29	24.68	327	0.03
19	10.92	32.84	6.79	1.40	20	10.47	32.84	6.85	1.42	25.21	277	0.06
29	7.22	32.84	7.29	1.54	30	7.07	32.84	7.28	1.55	25.73	228	0.09
48	4.96	32.85	7.09	1.74	50	4.86	32.85	7.07	1.73	26.01	201	0.13
72	4.04	32.92	6.94	1.74	75	3.98	32.93	7.03	1.76	26.17	186	0.18
96	3.68	33.05	7.07	1.95	100	3.72	33.12	6.62	2.02	26.34	170	0.22
144	3.98	33.69	3.11	2.58	150	3.96	33.72	2.93	2.60	26.80	127	0.30
186	3.86	33.88	1.90	2.93	200	3.90	33.88	1.84	2.55	26.93	115	0.36
287	3.82	34.00	1.02	3.11	250	3.88	33.94	1.28	2.59	26.98	111	0.42
					300	3.81	34.01	1.06	3.10	27.04	105	0.47
180d)	3.92	33.83	2.26	2.46	400	3.75	34.11	1.24	3.04	27.13	98	0.57
264	3.86	33.96	1.16	2.74	500	3.62	34.19	0.97	2.97	27.20	91	0.67
439	3.71	34.14	1.24	3.02	600	3.47	34.25	0.66	2.93	27.26	86	0.76
664	3.37	34.29	0.53	2.93	700	3.30	34.30	0.53	2.96	27.32	81	0.84
886	2.98	34.37	0.53	3.08	800	3.12	34.34	0.52	3.03	27.37	77	0.92
1163	2.57	34.47	0.60	3.16	1000	2.80	34.42	0.56	3.13	27.46	69	1.06
					1200	2.53	34.48	0.62	3.15	27.53	63	1.20
1443e)	2.28	34.52	0.72	3.12	1500	2.23	34.53	0.78	3.13	27.60	57	1.38
1933	1.92	34.61	1.29	3.12	2000	1.89	34.61	1.37	3.06	27.69	50	1.64
2418	1.71	34.64	1.88	2.85	2500	1.68	34.65	1.98	2.90	27.74	46	1.88
2909	1.58	34.67	2.45	2.99	3000	1.56	34.67	2.55	2.97	27.76	44	2.11
3383	1.53	34.68	2.99	2.73								

a) Overlapping second cast; wire angle, 08°.
b) First cast; wire angle, 25°.
c) Second cast; wire angle, 10°.
d) Overlapping third cast; wire angle, 22°.
e) First cast; wire angle, 15°.

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	OBSERVED					INTERPOLATED					COMPUTED		
	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ $10^5 cm^3/g$	ΔD dyn m
64-16	BROWN BEAR; August 14, 1954; 0445 GCT; 53°11'N, 145°23'W; sounding, 2200 fm; wind, 220°, 12 kt; weather, cloudy.												
	0a)	13.22	32.83	6.23	1.40	0	13.22	32.83	6.23	1.40	24.69	326	0.00
	9	13.22	32.84	6.23	1.33	10	13.39	32.83	6.18	1.33	24.66	330	0.03
	17	13.14	32.82	6.24	1.39	20	11.73	32.89	6.62	1.46	25.02	295	0.06
	26	9.18	33.00	7.17	1.60	30	7.60	33.02	7.18	1.69	25.80	221	0.09
	42	4.12	33.06	7.19	1.91	50	3.69	33.08	7.18	2.01	26.31	172	0.13
	68	3.10	33.14	7.06	2.06	75	3.04	33.17	7.07	1.97	26.45	160	0.17
	85	3.02	33.22	6.84	1.91	100	3.41	33.41	5.12	2.13	26.60	145	0.21
	128	3.88	33.69	2.69	2.53	150	4.00	33.84	1.48	2.85	26.89	119	0.27
	169	3.96	33.90	1.11	3.02	200	3.94	33.94	0.84	3.01	26.97	111	0.33
	255	3.88	34.01	0.58	3.16	250	3.89	34.00	0.59	3.14	27.02	106	0.38
						300	3.84	34.05	0.52	3.14	27.07	103	0.44
	157b)	4.00	33.87	1.27	2.92	400	3.71	34.14	0.41	3.10	27.15	95	0.54
	232	3.91	33.98	0.66	3.07	500	3.52	34.24	0.41	3.11	27.25	87	0.63
	397	3.72	34.14	0.41	3.10	600	3.34	34.30	0.41	3.10	27.32	81	0.71
	614	3.32	34.31	0.41	3.10	700	3.18	34.33	0.38	3.05	27.36	78	0.79
	832	2.97	34.36	0.39	3.02	800	3.02	34.35	0.38	3.02	27.39	75	0.87
	1106	2.59	34.42	0.60	3.10	1000	2.73	34.40	0.49	3.05	27.45	70	1.01
64-17	BROWN BEAR; August 14, 1954; 1756 GCT; 54°32'N, 145°28'W; sounding, 2190 fm; wind, 290°, 13 kt; weather, cloudy.												
	0c)	13.28	32.86	6.23	1.15	0	13.28	32.86	6.23	1.15	24.70	325	0.00
	10	13.22	32.79	6.25	1.23	10	13.22	32.79	6.25	1.23	24.66	329	0.03
	20	11.24	32.83	6.72	1.35	20	11.24	32.83	6.72	1.35	25.07	291	0.06
	29	6.60	32.95	7.39	1.59	30	6.45	32.95	7.39	1.60	25.90	211	0.09
	48	4.36	33.03	7.27	1.77	50	4.21	33.04	7.27	1.78	26.23	180	0.13
	70	3.28	33.15	6.81	1.90	75	3.32	33.20	6.47	1.94	26.44	160	0.17
	94	3.48	33.39	5.06	2.13	100	3.58	33.48	4.32	2.22	26.64	141	0.21
	137	4.00	33.89	1.18	2.69	150	3.98	33.90	1.08	2.82	26.94	114	0.27
	188	3.92	33.95	0.80	2.98	200	3.92	33.95	0.77	3.04	26.98	110	0.33
	281	3.85	34.06	0.45	2.79	250	3.89	34.02	0.59	2.88	27.04	105	0.38
						300	3.84	34.07	0.49	2.82	27.09	101	0.44
	194d)	3.93	33.94	0.84	3.16	400	3.66	34.16	0.47	2.90	27.17	93	0.53
	291	3.86	34.06	0.55	2.83	500	3.49	34.23	0.46	2.95	27.25	87	0.62
	485	3.52	34.22	0.46	2.94	600	3.33	34.28	0.46	2.96	27.30	82	0.71
	728	3.13	34.33	0.46	2.92	700	3.17	34.32	0.46	2.94	27.35	78	0.79
	970	2.79	34.40	0.45	2.65	800	3.03	34.35	0.44	2.77	27.39	75	0.86
	1255	2.42	34.48	0.69	3.13	1000	2.75	34.41	0.46	2.66	27.46	69	1.01
						1200	2.49	34.46	0.63	2.97	27.52	64	1.14

a) Overlapping second cast; wire angle, 25°.
b) First cast; wire angle, 34°.
c) Overlapping second cast; wire angle, 10°.
d) First cast; wire angle, 05°.

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	10^{-5} cm^3/g	dyn m

64-18

BROWN BEAR; August 15, 1954; 1002 GCT; 54°27'N, 147°17'W; sounding, 1160 fm; wind, calm; weather, cloudy.

0a)	12.80	32.98	6.22	1.41	0	12.80	32.98	6.22	1.41	24.89	307	0.00
9	12.78	32.99	6.23	1.49	10	12.85	32.98	6.22	1.48	24.88	308	0.03
19	12.22	32.97	6.40	1.49	20	11.87	32.98	6.47	1.50	25.07	291	0.06
28	9.36	33.01	7.01	1.60	30	8.86	33.01	7.08	1.62	25.60	240	0.09
47	5.45	33.04	7.39	1.73	50	5.01	33.05	7.40	1.72	26.15	188	0.13
71	3.06	33.17	6.96	1.74	75	3.10	33.21	6.69	1.80	26.47	157	0.17
95	3.34	33.39	5.28	2.00	100	3.46	33.45	4.77	1.92	26.63	142	0.21
142	4.12	33.81	1.74	1.82	150	4.12	33.83	1.53	2.06	26.87	121	0.28
189	4.06	33.96	0.78	2.87	200	4.06	34.08	0.75	2.86	27.07	102	0.33
284	3.87	34.07	0.49	2.76	250	3.96	34.49	0.58	2.75	27.41	70	0.38
					300	3.87	34.60	0.48	2.70	27.50	62	0.41
188b)	4.11	33.95	0.81	2.91	400	3.72	34.33	0.45	2.70	27.30	81	0.48
282	3.93	34.06	0.49	2.65	500	3.54	34.23	0.44	2.75	27.24	88	0.56
471	3.60	34.22	0.44	2.72	600	3.36	34.28	0.43	2.82	27.30	83	0.65
708	3.17	34.33	0.43	2.86	700	3.18	34.33	0.43	2.86	27.36	78	0.73
945	2.81	34.42	0.47	2.82	800	3.02	34.37	0.43	2.81	27.40	74	0.80
1227	2.46	34.49	0.69	3.15	1000	2.73	34.44	0.50	2.85	27.48	67	0.95
					1200	2.49	34.48	0.66	3.10	27.54	62	1.08

64-19

BROWN BEAR; August 15, 1954; 2132 GCT; 54°30'N, 149°23.5'W; sounding, 1770 fm; wind, 140°, 12 kt; weather, drizzle.

0c)	12.60	32.94	6.31	1.14	0	12.60	32.94	6.31	1.14	24.90	306	0.00
10	12.56	32.93	6.27	1.17	10	12.56	32.93	6.27	1.17	24.90	307	0.03
19	12.22	32.93	6.28	1.17	20	11.56	32.93	6.40	1.21	25.09	289	0.06
29	6.80	32.95	7.12	1.54	30	6.58	32.96	7.12	1.57	25.89	212	0.09
48	3.72	33.09	7.10	1.99	50	3.59	33.09	7.17	1.99	26.33	170	0.12
71	2.90	33.21	6.73	2.02	75	3.03	33.28	6.15	2.05	26.53	151	0.16
95	3.58	33.57	3.72	2.23	100	3.67	33.61	3.36	2.27	26.74	132	0.20
143	4.14	33.87	1.18	2.67	150	4.13	33.89	1.08	2.76	26.91	116	0.26
190	4.10	33.97	0.69	3.09	200	4.09	33.98	0.60	3.11	26.99	110	0.32
285	3.98	34.09	0.38	3.12	250	4.02	34.05	0.46	3.08	27.05	104	0.37
					300	3.94	34.10	0.38	3.06	27.10	100	0.42
191d)	4.10	33.97	0.58	3.15	400	3.75	34.19	0.38	3.06	27.19	92	0.52
288	3.96	34.09	0.38	3.00	500	3.56	34.26	0.38	3.04	27.26	86	0.61
481	3.60	34.25	0.38	3.05	600	3.36	34.31	0.38	3.02	27.32	80	0.69
721	3.14	34.36	0.40	3.02	700	3.18	34.35	0.40	3.02	27.37	76	0.77
965	2.76	34.42	0.49	3.10	800	3.01	34.38	0.43	3.05	27.41	73	0.84
1254	2.42	34.48	0.67	3.14	1000	2.71	34.43	0.52	3.11	27.48	67	0.98
					1200	2.47	34.47	0.63	3.14	27.53	63	1.11

a) Overlapping second cast; wire angle, 12°.
b) First cast; wire angle, 14°.
c) Overlapping second cast; wire angle, missing.
d) First cast; wire angle, 08°.

UW

BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	$10^{-5}cm^3/g$	dyn m

64-20 BROWN BEAR; August 16, 1954; 1050 GCT; 53°16'N, 149°28.5'W; sounding, 2400 fm; wind, 200°, 16 kt; weather, rain showers.

0a)	12.81	32.91	6.20	1.17	0	12.81	32.91	6.20	1.17	24.83	312	0.00
10	12.78	32.90	6.25	1.22	10	12.78	32.90	6.25	1.22	24.83	313	0.03
19	12.32	32.90	6.38	1.20	20	11.75	32.89	6.48	1.21	25.02	295	0.06
29	7.56	32.86	7.10	1.29	30	7.35	32.86	7.08	1.31	25.71	230	0.09
48	4.52	32.96	6.59	1.63	50	4.38	32.98	6.56	1.63	26.17	186	0.13
72	3.50	33.21	5.81	1.76	75	3.57	33.25	5.53	1.82	26.46	158	0.17
96	3.98	33.51	3.85	2.18	100	4.03	33.55	3.62	2.22	26.65	140	0.21
144	4.38	33.84	1.69	2.61	150	4.36	33.86	1.59	2.66	26.86	121	0.27
192	4.23	33.95	1.01	2.96	200	4.22	33.97	0.99	2.90	26.97	112	0.33
288	4.04	34.09	0.66	2.95	250	4.11	34.04	0.72	2.90	27.03	106	0.39
					300	4.02	34.08	0.55	2.89	27.07	102	0.44
187b)	4.24	33.96	1.08	2.83	400	3.83	34.14	0.39	2.85	27.14	96	0.54
277	4.06	34.05	0.49	2.84	500	3.64	34.20	0.35	2.85	27.21	91	0.63
461	3.72	34.17	0.34	2.84	600	3.44	34.26	0.38	2.86	27.28	85	0.72
696	3.26	34.31	0.41	2.87	700	3.25	34.31	0.41	2.87	27.33	80	0.80
936	2.83	34.40	0.46	2.85	800	3.06	34.35	0.43	2.85	27.38	76	0.88
1226	2.44	34.50	0.66	2.93	1000	2.73	34.42	0.49	2.86	27.47	68	1.02
					1200	2.47	34.49	0.64	2.92	27.55	61	1.15

64-21 BROWN BEAR; August 17, 1954; 0200 GCT; 52°02'N, 149°22.5'W; sounding, 2340 fm; wind, 220°, 16 kt; weather, overcast.

0c)	12.85	32.84	6.19	1.21	0	12.85	32.84	6.19	1.21	24.77	318	0.00
9	12.84	32.84	6.23	1.21	10	13.06	32.83	6.18	1.20	24.72	323	0.03
18	12.85	32.83	6.23	1.23	20	11.70	32.85	6.48	1.31	25.00	297	0.06
27	8.33	32.92	7.15	1.54	30	7.48	32.93	7.19	1.61	25.75	226	0.09
46	4.22	32.99	7.24	1.91	50	3.94	32.99	7.27	1.95	26.22	181	0.13
68	3.22	33.09	6.78	2.13	75	3.33	33.21	6.08	2.19	26.45	159	0.17
91	3.57	33.44	4.61	2.34	100	3.72	33.55	3.76	2.45	26.68	137	0.21
137	4.10	33.86	1.38	2.83	150	4.11	33.89	1.18	2.93	26.91	116	0.27
182	4.10	33.95	0.84	3.06	200	4.07	33.99	0.73	3.13	27.00	109	0.33
266	3.98	34.06	0.48	3.24	250	3.97	34.04	0.56	3.16	27.05	104	0.38
					300	3.88	34.09	0.48	3.15	27.10	100	0.43
177d)	4.12	33.96	0.77	3.16	400	3.71	34.15	0.40	3.13	27.16	95	0.53
264	3.90	34.05	0.56	3.10	500	3.53	34.22	0.39	3.13	27.24	88	0.62
442	3.64	34.18	0.38	3.12	600	3.35	34.28	0.41	3.15	27.30	83	0.71
673	3.22	34.31	0.43	3.16	700	3.17	34.32	0.44	3.16	27.35	78	0.79
902	2.86	34.38	0.49	3.17	800	3.01	34.35	0.46	3.16	27.39	75	0.86
1174	2.53	34.47	0.63	3.24	1000	2.73	34.41	0.54	3.19	27.46	69	1.01

a) Overlapping second cast; wire angle, 07°.
b) First cast; wire angle, 12°.
c) Overlapping second cast; wire angle, 20°.
d) First cast; wire angle, 30°.

BROWN BEAR; August 17, 1954; 1510 GCT; 52°05'N, 151°29.5'W; sounding, 2400 fm; wind, 270°, 12 kt; weather, overcast. 64-22

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5}cm^3/g	ΔD dyn m
0a)	12.68	32.82	6.28	1.12	0	12.68	32.82	6.28	1.12	24.79	317	0.00
9	12.66	32.80	6.28	1.16	10	12.86	32.79	6.23	1.14	24.73	322	0.03
18	12.70	32.80	6.22	1.17	20	11.75	32.84	6.45	1.27	24.98	299	0.06
27	8.85	32.94	7.08	1.55	30	7.88	32.95	7.12	1.63	25.70	230	0.09
46	4.18	33.01	7.24	1.91	50	3.95	33.02	7.24	1.92	26.24	179	0.13
68	3.23	33.08	7.11	1.95	75	3.15	33.09	7.13	1.93	26.37	167	0.17
91	3.11	33.16	6.70	1.97	100	3.40	33.34	5.36	2.11	26.55	150	0.21
137	4.12	33.85	1.67	2.62	150	4.09	33.89	1.40	2.79	26.92	116	0.28
182	4.02	33.95	0.86	3.10	200	4.00	33.97	0.81	3.10	26.99	109	0.34
274	3.88	34.04	0.52	3.24	250	3.92	34.01	0.58	3.14	27.03	106	0.39
					300	3.84	34.07	0.48	3.12	27.09	101	0.44
176b)	4.06	33.95	0.97	3.07	400	3.69	34.16	0.41	3.06	27.17	94	0.54
264	3.90	34.02	0.50	3.06	500	3.52	34.23	0.38	3.07	27.24	87	0.63
444	3.62	34.20	0.39	3.05	600	3.35	34.28	0.37	3.10	27.30	83	0.71
673	3.23	34.31	0.38	3.12	700	3.19	34.32	0.39	3.13	27.35	79	0.80
903	2.87	34.41	0.50	3.20	800	3.03	34.37	0.45	3.17	27.40	74	0.87
1180	2.49	34.49	0.67	3.24	1000	2.73	34.44	0.56	3.22	27.48	67	1.01

BROWN BEAR; August 18, 1954; 0607 GCT; 52°07'N, 153°31'W; sounding, 2350 fm; wind, 220°, 19 kt; weather, intermittent slight drizzle. 64-23

0c)	12.14	32.74	6.43	0.99	0	12.14	32.74	6.43	0.99	24.83	313	0.00
8	12.13	32.74	6.40	0.98	10	12.16	32.74	6.37	0.99	24.83	313	0.03
16	12.11	32.73	6.35	1.00	20	12.12	32.73	6.38	0.98	24.83	314	0.06
24	11.76	32.74	6.45	1.00	30	9.29	32.80	6.78	1.20	25.37	262	0.09
41	5.98	32.89	7.06	1.48	50	4.94	32.93	6.81	1.60	26.07	196	0.14
61	4.04	32.99	6.56	1.71	75	3.55	33.07	6.38	1.75	26.32	172	0.18
79	3.47	33.10	6.27	1.77	100	3.73	33.34	4.91	1.89	26.52	153	0.22
114	3.88	33.48	4.03	2.05	150	4.22	33.83	1.81	2.93	26.86	122	0.29
158	4.22	33.87	1.52	3.01	200	3.91	33.94	1.01	3.01	26.97	111	0.35
228	3.91	33.97	0.75	3.17	250	3.94	33.99	0.67	2.89	27.01	108	0.41
					300	3.92	34.04	0.55	2.72	27.05	104	0.46
191d)	3.92	33.93	1.12	2.88	400	3.79	34.15	0.40	2.78	27.15	95	0.56
269	3.95	34.00	0.62	2.70	500	3.60	34.22	0.39	2.81	27.23	89	0.65
435	3.74	34.18	0.43	2.79	600	3.40	34.26	0.41	2.83	27.28	85	0.74
635	3.34	34.28	0.43	2.83	700	3.23	34.30	0.45	2.80	27.33	81	0.82
846	3.00	34.35	0.49	2.84	800	3.07	34.33	0.47	2.81	27.37	77	0.90
1265	2.44	34.51	0.72	3.69	1000	2.81	34.45	0.62	4.00	27.49	67	1.04
					1200	2.54	34.51	0.71	4.04	27.56	61	1.17
1331e)	2.34	34.50	0.72	3.16	1500	2.20	34.52	0.92	3.04	27.59	58	1.35
1759	2.01	34.55	1.21	2.94	2000	1.89	34.59	1.42	3.03	27.67	51	1.62
2207	1.79	34.62	1.64	2.98	2500	1.67	34.66	2.04	2.55	27.75	45	1.86
2651	1.62	34.67	2.22	2.46	3000	1.55	34.69	2.58	2.69	27.78	43	2.08
3098	1.54	34.69	2.67	2.73								
3640	1.50	34.69	3.06	2.82								

a) Overlapping second cast; wire angle, missing.
b) First cast; wire angle, 21°.
c) Second cast; wire angle, 30°.
d) Overlapping third cast; wire angle, 35°.
e) First cast; wire angle, 35°.

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OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m
64-24 BROWN BEAR; August 18, 1954; 2222 GCT; 53°18'N, 153°27'W; sounding, 2350 fm; wind, 180°, 20 kt; weather, fog.												
0a)	12.62	32.87	6.19	1.16	0	12.62	32.87	6.19	1.16	24.84	312	0.00
9	12.62	32.88	6.22	1.16	10	12.68	32.88	6.20	1.16	24.84	313	0.03
19	12.58	32.90	6.22	1.18	20	12.52	32.90	6.25	1.20	24.88	308	0.06
28	11.40	32.93	6.51	1.33	30	10.43	32.94	6.63	1.37	25.29	269	0.09
47	4.48	33.05	7.19	1.69	50	4.17	33.06	7.22	1.73	26.25	178	0.14
70	2.96	33.17	6.65	1.98	75	3.09	33.23	6.12	2.03	26.49	156	0.18
93	3.49	33.43	4.36	2.19	100	3.66	33.53	3.60	2.25	26.67	138	0.22
140	4.21	33.90	0.88	2.56	150	4.20	33.91	0.82	2.60	26.92	116	0.28
186	4.10	33.98	0.56	3.02	200	4.09	34.00	0.52	3.13	27.00	108	0.33
280	3.92	34.07	0.41	2.99	250	4.01	34.05	0.43	3.20	27.05	104	0.39
					300	3.89	34.09	0.40	3.01	27.10	100	0.44
171b)	4.15	33.94	0.67	2.79	400	3.72	34.17	0.38	3.05	27.18	93	0.54
262	3.98	34.06	0.41	3.14	500	3.51	34.24	0.36	3.00	27.25	87	0.62
445	3.64	34.20	0.37	3.06	600	3.31	34.29	0.36	2.94	27.31	82	0.71
679	3.16	34.33	0.37	2.93	700	3.13	34.34	0.37	2.95	27.37	77	0.79
915	2.82	34.40	0.45	3.09	800	2.99	34.36	0.40	3.02	27.40	74	0.86
1203	2.39	34.52	0.67	3.18	1000	2.69	34.43	0.50	3.13	27.48	67	1.00
					1200	2.39	34.52	0.67	3.18	27.58	58	1.13
64-25 BROWN BEAR; August 19, 1954; 1043 GCT; 54°31'N, 153°09.5'W; sounding, 2350 fm; wind, 220°, 25 kt; weather, intermittent slight drizzle.												
0c)	12.36	32.75	6.22	1.11	0	12.36	32.75	6.22	1.11	24.80	316	0.00
9	12.36	32.79	6.23	1.08	10	12.53	32.78	6.17	1.08	24.79	317	0.03
18	12.27	32.76	6.25	1.15	20	11.32	32.80	6.56	1.19	25.03	294	0.06
27	8.46	32.90	7.35	1.33	30	7.64	32.92	7.30	1.40	25.72	229	0.09
46	4.40	33.04	6.93	1.75	50	4.04	33.07	6.85	1.84	26.27	176	0.13
68	3.12	33.22	6.09	2.08	75	3.27	33.29	5.47	2.03	26.52	153	0.17
91	3.58	33.45	4.12	1.98	100	3.78	33.57	3.32	2.01	26.69	136	0.21
137	4.28	33.89	1.08	2.28	150	4.25	33.91	0.95	2.53	26.92	116	0.27
182	4.16	33.96	0.67	2.99	200	4.14	33.98	0.65	2.93	26.98	110	0.33
273	4.00	34.05	0.45	2.92	250	4.07	34.02	0.52	2.85	27.02	107	0.38
					300	3.98	34.06	0.46	2.92	27.06	103	0.43
181d)	4.18	33.95	0.73	2.95	400	3.80	34.12	0.43	3.19	27.13	98	0.53
273	4.06	34.03	0.49	2.73	500	3.58	34.17	0.40	3.35	27.19	92	0.63
456	3.69	-	-	-	600	3.36	34.23	0.39	3.39	27.26	86	0.72
678	3.21	34.27	0.38	3.33	700	3.17	34.28	0.38	3.25	27.32	81	0.80
885	2.88	34.37	0.39	2.82	800	3.01	34.33	0.37	2.96	27.37	77	0.88
1148	2.51	34.45	0.60	2.98	1000	2.71	34.41	0.46	2.78	27.46	69	1.03

a) Overlapping second cast; wire angle, 10°.
b) First cast; wire angle, 30°.
c) Overlapping second cast; wire angle, 30°.
d) First cast; wire angle, 20°.

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	$10^{-5}cm^3/g$	dyn m

64-26

BROWN BEAR; August 19, 1954; 2027 GCT; 55°06.5'N, 153°06.5'W; sounding, 2880 fm; wind, 270°, 12 kt; weather, overcast.

0a)	13.17	32.95	6.06	1.40	0	13.17	32.95	6.06	1.40	24.79	316	0.00
9	13.16	32.95	6.18	1.42	10	13.35	32.95	6.15	1.42	24.76	320	0.03
17	13.11	32.95	6.16	1.44	20	11.52	32.98	6.45	1.49	25.13	285	0.06
26	8.82	33.03	6.89	1.57	30	7.59	33.05	7.01	1.58	25.82	219	0.09
43	4.61	33.11	7.18	1.72	50	3.92	33.13	7.07	1.96	26.33	170	0.13
64	3.04	33.19	6.65	2.24	75	2.99	33.24	6.16	2.15	26.51	154	0.17
86	3.04	33.32	5.51	2.12	100	3.49	33.52	3.77	2.30	26.68	138	0.20
129	4.08	33.83	1.34	2.66	150	4.10	33.92	0.96	2.94	26.94	114	0.27
172	4.10	34.00	0.63	3.22	200	4.05	34.03	0.56	3.08	27.03	105	0.32
260	3.93	34.09	0.39	3.00	250	3.96	34.07	0.41	2.99	27.07	102	0.37
					300	3.89	34.11	0.39	2.97	27.11	99	0.42
171b)	4.10	33.99	0.69	3.05	400	3.74	34.18	0.39	2.95	27.18	93	0.52
258	3.94	34.08	0.39	2.97	500	3.55	34.25	0.38	2.94	27.26	86	0.61
437	3.68	34.20	0.39	2.95	600	3.35	34.31	0.38	2.94	27.32	80	0.69
663	3.23	34.34	0.38	2.96	700	3.17	34.35	0.38	3.00	27.37	76	0.77
893	2.86	34.42	0.45	3.13	800	3.01	34.39	0.40	3.08	27.42	72	0.84
1168	2.40	34.52	0.67	3.14	1000	2.66	34.47	0.53	3.14	27.51	64	0.98
					1200	2.37	34.52	0.71	3.13	27.58	58	1.10
1601c)	2.00	34.56	1.12	2.98	1500	2.08	34.55	1.01	3.02	27.63	54	1.27
2079	1.74	34.63	1.70	2.74	2000	1.78	34.62	1.60	2.75	27.71	48	1.52
2559	1.57	34.63	2.27	2.86	2500	1.59	34.63	2.21	2.86	27.73	46	1.76
3038	1.48	34.69	2.69	2.73	3000	1.48	34.69	2.65	2.74	27.78	42	1.98
3803	1.48	34.70	3.25	2.59	4000	1.48	34.70	3.34	2.53	27.79	44	2.40
4758	1.52	34.71	3.47	2.18								

64-27

BROWN BEAR; August 20, 1954; 1133 GCT; 55°43.5'N, 153°14'W; sounding, 2000 fm; wind, 250°, 16 kt; weather, partly cloudy.

0d)	13.30	32.73	5.96	1.03	0	13.30	32.73	5.96	1.03	24.60	335	0.00
9	13.32	32.68	6.20	1.06	10	13.52	32.67	6.15	1.03	24.51	344	0.03
19	13.32	32.70	6.20	1.06	20	12.85	32.74	6.35	1.12	24.69	326	0.07
28	9.50	32.96	7.26	1.54	30	8.79	32.97	7.28	1.59	25.58	242	0.10
47	4.34	33.06	7.32	1.92	50	4.08	33.06	7.34	1.97	26.26	177	0.14
71	2.98	33.15	6.87	2.13	75	3.01	33.18	6.59	2.07	26.46	159	0.18
95	3.24	33.36	5.08	1.95	100	3.38	33.44	4.46	2.03	26.63	142	0.22
142	4.15	33.89	0.96	2.64	150	4.14	33.90	0.88	2.77	26.92	116	0.28
189	4.07	33.97	0.62	3.16	200	4.08	33.97	0.59	3.16	26.98	110	0.34
284	3.94	34.06	0.40	3.07	250	4.00	34.02	0.52	3.12	27.03	106	0.39
					300	3.92	34.06	0.46	3.14	27.07	103	0.44
182e)	4.12	33.95	0.64	3.19	400	3.77	34.13	0.40	3.24	27.14	97	0.54
274	3.96	34.02	0.53	3.15	500	3.60	34.19	0.37	3.25	27.20	91	0.64
457	3.68	34.17	0.38	3.27	600	3.42	34.24	0.36	3.22	27.26	86	0.73
691	3.26	34.28	0.37	3.19	700	3.24	34.28	0.37	3.19	27.31	82	0.81
926	2.88	-	0.45	3.16	800	3.08	34.32	0.39	3.16	27.36	78	0.89
1211	2.48	34.45	0.66	3.26	1000	2.77	34.39	0.49	3.17	27.44	71	1.04
					1200	2.49	34.45	0.65	3.25	27.51	65	1.18

a) Overlapping second cast; wire angle, 22°.
b) First cast; wire angle, 27°.
c) Third cast; wire angle, 07°.
d) Overlapping second cast; wire angle, 10°.
e) First cast; wire angle, 20°.

UW

BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m
64-28	BROWN BEAR; August 20, 1954; 1853 GCT; 56°13.5'N, 152°58'W; sounding, 530 fm; wind, 250°, 18 kt; weather, partly cloudy.											
0a)	10.06	32.38	6.53	1.97	0	10.06	32.38	6.53	1.97	24.92	304	0.00
9	10.07	32.38	6.53	1.98	10	10.12	32.37	6.52	1.76	24.90	306	0.03
18	10.04	32.39	6.53	0.79	20	9.84	32.42	6.60	0.89	24.99	298	0.06
26	9.05	32.52	6.69	1.16	30	7.87	32.58	6.42	1.34	25.42	258	0.09
44	5.04	32.77	5.81	1.79	50	4.86	32.83	5.92	1.85	25.99	202	0.14
66	4.60	32.98	5.84	1.95	75	4.64	33.05	5.42	1.93	26.19	184	0.18
86	4.70	33.14	4.95	1.94	100	4.79	33.25	4.40	2.01	26.34	171	0.23
127	4.92	33.44	3.52	2.20	150	4.99	33.59	2.97	2.50	26.58	148	0.31
170	5.03	33.68	2.67	2.73	200	4.75	33.77	2.12	2.82	26.75	132	0.38
259	4.35	33.89	1.49	2.97	250	4.40	33.88	1.53	2.97	26.88	121	0.44
					300	4.24	33.95	1.25	3.06	26.95	114	0.50
173b)	4.95	33.73	2.35	2.71	400	4.02	34.06	0.87	3.18	27.06	104	0.61
262	4.32	33.92	1.37	3.03	500	3.84	34.14	0.60	3.27	27.14	98	0.71
452	3.92	34.11	0.72	3.23	600	3.68	34.19	0.44	3.33	27.20	93	0.80
259c)	4.56	33.89	1.48	3.03								
689	3.58	34.21	0.39	3.36								
64-29	BROWN BEAR; August 21, 1954; 0421 GCT; 56°21'N, 152°18.5'W; sounding, 220 fm; wind, 250°, 15 kt; weather, partly cloudy.											
0d)	12.16	32.33	6.36	0.64	0	12.16	32.33	6.36	0.64	24.51	343	0.00
10	12.13	32.31	6.43	0.72	10	12.13	32.31	6.43	0.72	24.50	344	0.03
19	8.73	32.56	6.62	1.18	20	8.40	32.57	6.62	1.22	25.33	266	0.06
29	6.07	32.68	6.62	1.50	30	5.98	32.69	6.62	1.49	25.75	225	0.09
48	4.82	32.88	6.36	1.50	50	4.81	32.89	6.25	1.53	26.05	198	0.13
72	4.71	33.03	5.42	1.87	75	4.68	33.04	5.43	1.92	26.18	185	0.18
96	4.57	33.14	5.29	2.16	100	4.63	33.18	5.11	2.15	26.30	174	0.22
143	5.01	33.53	3.46	2.20	150	5.00	33.58	3.26	2.28	26.57	149	0.31
191	4.94	33.80	2.36	2.74	200	4.82	33.83	2.16	2.73	26.79	129	0.38
					250	4.48	33.91	1.55	2.93	26.89	119	0.44
190e)	4.85	33.82	2.26	2.62	300	4.30	33.96	1.15	3.05	26.95	114	0.50
284	4.34	33.95	1.25	3.02								
350	4.25	33.99	1.00	3.11								
64-30	BROWN BEAR; August 21, 1954; 0905 GCT; 56°05'N, 152°01'W; sounding, 2600 fm; wind, 250°, 16 kt; weather, clear.											
0f)	13.14	32.83	6.17	1.28	0	13.14	32.83	6.17	1.28	24.71	325	0.00
9	13.14	32.83	6.18	1.26	10	12.95	32.84	6.29	1.30	24.75	320	0.03
19	10.24	32.96	7.08	1.63	20	9.62	32.97	7.16	1.65	25.45	254	0.06
28	5.66	33.05	7.56	1.82	30	5.40	33.05	7.52	1.86	26.11	192	0.08
47	3.70	33.10	7.17	2.13	50	3.53	33.11	7.20	2.13	26.35	168	0.12
71	2.92	33.20	6.72	2.21	75	3.02	33.24	6.34	2.25	26.50	154	0.16
95	3.45	33.43	4.57	2.46	100	3.55	33.49	4.10	2.50	26.65	140	0.20
142	4.12	33.87	1.27	2.85	150	4.13	33.89	1.12	2.93	26.91	116	0.26
189	4.14	33.98	0.59	3.31	200	4.12	33.99	0.56	3.20	26.99	109	0.32
283	4.02	34.07	0.38	3.10	250	4.04	34.04	0.45	3.12	27.04	105	0.37
					300	3.96	34.08	0.39	3.10	27.08	102	0.42
191g)	4.12	33.98	0.57	3.14	400	3.78	34.17	0.39	3.20	27.17	94	0.52
287	3.96	34.07	0.40	3.06	500	3.60	34.24	0.39	3.18	27.24	88	0.61
479	3.64	34.23	0.39	3.22	600	3.42	34.28	0.40	3.06	27.29	83	0.70
718	3.21	34.33	0.43	3.02	700	3.24	34.32	0.43	3.02	27.34	79	0.78
958	2.81	34.43	0.49	3.29	800	3.06	34.37	0.44	3.14	27.40	74	0.85
1245	2.44	34.50	0.69	3.25	1000	2.75	34.44	0.52	3.31	27.48	67	1.00
					1200	2.49	34.49	0.65	3.28	27.55	62	1.12

a) Overlapping second cast; wire angle, 13°.
b) First cast; wire angle, 17°.
c) Overlapping third cast; wire angle, 35°.
d) Overlapping second cast; wire angle, 07°.
e) First cast; wire angle, 10°.
f) Overlapping second cast; wire angle, 05°.
g) First cast; wire angle, 06°.

BROWN BEAR; August 21, 1954; 1640 GCT; 55°31'N, 151°25'W; sounding, 2550 fm; wind, 270°, 8 kt; weather, partly cloudy. 64-31

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m
0a)	12.79	32.98	6.18	1.35	0	12.79	32.98	6.18	1.35	24.89	307	0.00
10	12.78	32.99	6.20	1.37	10	12.78	32.99	6.20	1.37	24.90	306	0.03
19	12.70	32.97	6.22	1.35	20	11.92	32.98	6.37	1.39	25.06	292	0.06
29	6.42	33.05	7.35	1.68	30	6.23	33.06	7.31	1.71	26.01	200	0.09
48	3.76	33.14	6.87	2.13	50	3.69	33.14	6.89	2.13	26.36	168	0.12
72	3.23	33.22	6.54	2.20	75	3.25	33.24	6.35	2.21	26.48	156	0.16
96	3.44	33.40	4.92	2.32	100	3.53	33.45	4.47	2.38	26.62	143	0.20
143	4.17	33.86	1.16	2.92	150	4.16	33.88	1.08	3.00	26.90	117	0.26
191	4.12	33.97	0.66	3.39	200	4.10	33.98	0.66	3.30	26.99	110	0.32
288	3.94	34.08	0.45	3.30	250	4.01	34.04	0.52	3.28	27.04	105	0.38
					300	3.93	34.10	0.44	3.27	27.10	100	0.43
186b)	4.12	33.97	0.73	3.23	400	3.77	34.18	0.39	3.24	27.18	93	0.52
279	3.96	34.09	0.44	3.24	500	3.59	34.25	0.38	3.25	27.25	87	0.61
463	3.66	34.23	0.38	3.24	600	3.40	34.29	0.39	3.28	27.30	82	0.70
704	3.20	34.33	0.40	3.28	700	3.21	34.33	0.40	3.28	27.35	78	0.78
936	2.76	34.42	0.47	3.22	800	3.00	34.37	0.41	3.26	27.40	74	0.85
1220	2.38	34.48	0.78	3.14	1000	2.66	34.44	0.52	3.20	27.49	66	0.99
					1200	2.40	34.48	0.75	3.15	27.54	61	1.12

BROWN BEAR; August 22, 1954; 0436 GCT; 56°08'N, 149°29'W; sounding, 2450 fm; wind, 270°, 8 kt; weather, cloudy. 64-32

0c)	13.34	32.99	6.13	1.28	0	13.34	32.99	6.13	1.28	24.79	317	0.00
9	13.31	33.01	6.20	1.31	10	13.44	33.00	6.16	1.31	24.78	318	0.03
18	13.10	32.96	6.23	1.36	20	12.25	32.98	6.54	1.41	25.00	298	0.06
28	9.13	33.05	7.40	1.60	30	8.31	33.06	7.38	1.66	25.73	228	0.09
46	3.69	33.12	7.12	1.99	50	3.49	33.12	7.11	1.94	26.36	167	0.13
69	3.03	33.21	6.37	1.87	75	3.20	33.29	5.67	1.96	26.53	152	0.17
92	3.60	33.51	3.93	2.20	100	3.73	33.60	3.27	2.30	26.72	134	0.20
138	4.14	33.90	1.09	2.74	150	4.13	33.92	0.94	2.87	26.94	114	0.27
184	4.09	33.96	0.63	3.32	200	4.08	33.98	0.57	3.18	26.99	109	0.32
277	3.96	34.07	0.40	3.42	250	4.00	34.04	0.45	3.22	27.05	105	0.38
					300	3.92	34.09	0.39	3.24	27.09	100	0.43
188d)	4.12	33.97	0.60	3.16	400	3.76	34.18	0.38	3.23	27.18	93	0.52
275	3.97	34.07	0.39	3.06	500	3.60	34.25	0.37	3.25	27.25	87	0.62
463	3.66	34.23	0.37	3.23	600	3.42	34.29	0.37	3.28	27.30	83	0.70
701	3.24	34.33	0.38	3.30	700	3.24	34.33	0.38	3.30	27.35	78	0.78
956	2.74	34.42	0.48	3.28	800	3.02	34.37	0.40	3.29	27.40	74	0.86
1234	2.44	34.47	0.74	3.28	1000	2.68	34.43	0.52	3.28	27.48	67	1.00
					1200	2.46	34.47	0.69	3.28	27.53	63	1.13

a) Overlapping second cast; wire angle, 05°.
b) First cast; wire angle, 10°.
c) Overlapping second cast; wire angle, 10°.
d) First cast; wire angle, 18°.

UW BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m

64-33 BROWN BEAR; August 22, 1954; 1625 GCT; 56°59.5'N, 149°30'W; sounding, 1880 fm; wind, 270°, 18 kt; weather, cloudy.

0a)	13.73	32.14	6.15	0.61	0	13.73	32.14	6.15	0.61	24.06	386	0.00
9	13.76	32.14	6.25	0.63	10	13.98	32.15	6.28	0.61	24.01	391	0.04
19	13.08	32.27	6.55	0.71	20	12.23	32.30	6.57	0.80	24.47	347	0.08
28	7.02	32.50	6.66	1.34	30	6.84	32.52	6.62	1.36	25.51	248	0.11
47	5.66	32.65	6.44	1.54	50	5.59	32.68	6.48	1.57	25.79	222	0.15
71	5.10	32.83	6.70	1.77	75	4.97	32.84	6.78	1.79	25.99	203	0.21
94	4.59	32.94	6.71	1.92	100	4.77	33.04	6.16	2.00	26.17	186	0.26
141	5.38	33.55	3.56	2.44	150	5.34	33.62	3.33	2.52	26.57	150	0.34
188	4.84	33.79	2.51	2.77	200	4.73	33.81	2.27	2.81	26.78	129	0.41
284	4.33	33.93	1.25	3.13	250	4.42	33.89	1.52	2.99	26.88	120	0.47
					300	4.29	33.95	1.15	3.15	26.94	115	0.53
167b)	5.18	33.72	2.93	2.65	400	4.08	34.06	0.68	3.26	27.05	105	0.64
250	4.42	33.89	1.52	2.99	500	3.90	34.14	0.55	3.26	27.13	98	0.74
420	4.04	34.08	0.62	3.27	600	3.72	34.20	0.49	3.25	27.20	92	0.84
636	3.66	34.22	0.47	3.25	700	3.54	34.25	0.45	3.25	27.26	88	0.93
863	3.24	34.33	0.43	3.25	800	3.35	34.30	0.43	3.25	27.32	83	1.01
1141	2.80	34.42	0.55	3.29	1000	3.01	34.38	0.46	3.26	27.41	74	1.17

64-34 BROWN BEAR; August 22, 1954; 2202 GCT; 57°29.5'N, 149°31'W; sounding, 1030 fm; wind, 140°, 26 kt; weather, intermittent slight rain.

0a)	12.96	32.34	6.50	0.59	0	12.96	32.34	6.50	0.59	24.36	357	0.00
10	12.96	32.32	6.31	0.65	10	12.96	32.32	6.31	0.65	24.35	359	0.04
19	12.92	32.32	6.31	0.58	20	12.99	32.31	6.31	0.57	24.34	360	0.07
29	12.61	32.32	6.34	0.62	30	12.12	32.34	6.38	0.68	24.52	343	0.11
48	5.81	32.67	6.80	1.47	50	5.70	32.69	6.78	1.51	25.79	222	0.16
72	4.80	32.87	6.51	1.86	75	4.74	32.88	6.51	1.87	26.05	198	0.22
96	4.48	32.97	6.22	1.99	100	4.57	33.03	5.95	2.03	26.18	185	0.26
143	5.00	33.51	3.75	2.28	150	5.23	33.58	3.39	2.51	26.55	151	0.35
191	5.18	33.81	2.31	2.79	200	5.05	33.83	2.15	2.65	26.76	131	0.42
287	4.34	33.93	1.23	3.14	250	4.49	33.98	1.32	2.91	26.95	114	0.48
					300	4.46	33.74	1.70	2.96	26.76	132	0.54
147c)	5.40	33.57	3.37	2.56	400	4.67	33.28	2.71	2.49	26.37	170	0.69
221	4.78	33.87	1.83	2.46	500	4.09	33.91	1.10	2.97	26.93	117	0.84
370	4.88	33.04	3.34	2.30	600	3.74	34.17		3.09	27.17	95	0.94
559	3.83	34.15	0.50	3.13	700	3.53	34.22		3.04	27.24	90	1.03
754	3.43	34.25	0.43	3.05	800	3.35	34.27		3.08	27.29	85	1.12
1024	3.04	34.37	-	3.48	1000	3.07	34.36		3.42	27.39	76	1.28

64-35 BROWN BEAR; August 23, 1954; 0155 GCT; 57°48'N, 149°28.5'W; sounding, 360 fm; wind, 140°, 23 kt; weather, moderate rain.

0d)	12.64	32.28	6.22	0.60	0	12.64	32.28	6.22		24.38	356	0.00
8	12.64	32.29	6.42	0.61	10	12.79	32.29	6.40		24.36	358	0.04
16	12.56	32.30	6.36	0.61	20	11.60	32.32	6.38		24.61	334	0.07
25	10.33	32.36	6.43	0.94	30	8.54	32.47	6.57		25.23	275	0.10
41	5.81	32.65	6.72	1.48	50	5.53	32.71	6.51		25.82	219	0.15
62	5.21	32.78	6.33	1.61	75	4.90	32.83	6.37		25.99	203	0.20
82	4.78	32.87	6.33	1.49	100	4.73	32.98	5.80		26.13	190	0.25
123	4.81	33.17	4.98	1.62	150	5.18	33.50	3.71		26.49	157	0.34
164	5.38	33.73	2.84	2.49	200	4.98	33.73	2.63		26.69	138	0.41
253	4.56	33.87	1.67	2.82	250	4.64	33.85	1.95		26.83	125	0.48
					300	4.36	33.94	1.41		26.93	116	0.54
159e)	5.18	33.50	3.66	2.16	400	3.97	34.04	0.78		27.05	105	0.65
246	4.72	33.83	2.22	2.56								
429	3.90	34.05	0.72	2.82								

a) Overlapping second cast; wire angle, 05°.
b) First cast; wire angle, 27°.
c) First cast; wire angle, 42°.
d) Overlapping second cast; wire angle, 30°.
e) First cast; wire angle, 35°.

OBSERVED					INTERPOLATED					COMPUTED			
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD	
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	10^{-5} cm^3/g	dyn m	

BROWN BEAR; August 23, 1954; 0848 GCT; 58°25.5'N, 149°29'W; sounding, 80 fm; wind, 180°, 10 kt; weather, moderate rain; wire angle, 10°, 10°. 64-36

0	11.76	31.76	6.43	0.55	0	11.76	31.76	6.43	0.55	24.14	378	0.00
10	11.49	32.03	6.56	0.64	10	11.49	32.03	6.56	0.64	24.40	354	0.04
19	10.96	32.07	6.66	0.74	20	10.83	32.09	6.65	0.76	24.56	339	0.07
28	9.70	32.20	6.55	0.94	30	9.26	32.22	6.55	1.02	24.93	304	0.10
48	6.28	32.37	6.46	1.54	50	6.13	32.38	6.45	1.56	25.49	250	0.16
71	5.02	32.59	6.16	1.77	75	4.90	32.64	6.08	1.82	25.84	217	0.22
95	4.70	32.94	5.56	2.14								

BROWN BEAR; August 23, 1954; 1343 GCT; 58°54'N, 149°21.5'W; sounding, 130 fm; wind, 160°, 9 kt; weather, moderate rain; wire angle, 00°. 64-37

0	11.89	31.83	6.34	0.59	0	11.89	31.83	6.34	0.59	24.17	376	0.00
10	11.60	32.00	6.55	0.62	10	11.60	32.00	6.55	0.62	24.36	358	0.04
19	9.31	32.21	6.81	0.99	20	8.96	32.23	6.78	1.04	24.98	299	0.07
29	6.50	32.38	6.56	1.40	30	6.40	32.39	6.55	1.41	25.47	253	0.10
48	5.10	32.55	6.33	1.58	50	5.07	32.56	6.31	1.60	25.76	225	0.15
72	4.76	32.71	6.13	1.76	75	4.72	32.74	6.14	1.76	25.94	208	0.20
96	4.53	32.90	6.01	1.83	100	4.51	32.93	5.96	1.85	26.11	192	0.25
144	4.70	33.19	4.54	2.33								

BROWN BEAR; August 23, 1954; 1805 GCT; 59°21'N, 149°30'W; sounding, 77 fm; wind, 040°, 28 kt; weather, intermittent heavy rain; wire angle, 11°. 64-38

0	11.94	31.92	6.56	0.58	0	11.94	31.92	6.56	0.58	24.23	370	0.00
9	11.92	31.93	6.60	0.46	10	11.83	31.95	6.62	0.49	24.28	366	0.04
18	10.60	32.07	6.68	0.77	20	9.94	32.10	6.65	0.87	24.72	324	0.07
27	8.06	32.17	6.59	1.17	30	7.73	32.17	6.59	1.22	25.12	286	0.10
45	6.38	32.23	6.51	1.47	50	6.05	32.29	6.43	1.55	25.43	256	0.16
68	5.20	32.47	6.22	1.78	75	5.02	32.52	6.17	1.83	25.73	228	0.22
91	4.93	32.59	6.13	1.89								

BROWN BEAR; August 27, 1954; 1219 GCT; 59°37'N, 145°18'W; sounding, 60 fm; wind, 340°, 10 kt; weather, overcast; wire angle, 00°. 64-39

0	13.18	29.15	6.10	0.35	0	13.18	29.15	6.10	0.35	21.86	596	0.00
10	13.23	29.15	6.27	0.41	10	13.23	29.15	6.27	0.41	21.85	597	0.06
19	11.74	30.34	6.20	0.55	20	11.74	30.37	6.19	0.54	23.07	481	0.11
29	11.56	30.62	6.10	0.53	30	11.45	30.67	6.12	0.55	23.35	454	0.16
48	10.64	31.62	6.23	0.80	50	9.35	31.51	6.22	0.87	24.36	359	0.24
72	7.34	32.06	6.19	1.25								
96	5.51	32.22	6.00	1.69								

BROWN BEAR; August 27, 1954; 1424 GCT; 59°29'N, 145°25'W; sounding, 120 fm; wind, 270°, 6 kt; weather, cloudy; wire angle, 00°. 64-40

0	13.31	29.14	6.25	0.38	0	13.31	29.14	6.25	0.38	21.83	599	0.00
10	13.19	29.35	6.43	0.40	10	13.19	29.35	6.43	0.40	22.01	582	0.06
19	12.94	30.95	6.31	0.54	20	12.86	31.07	6.28	0.55	23.40	449	0.11
29	11.93	31.87	6.19	0.64	30	11.72	31.87	6.23	0.66	24.24	370	0.15
48	8.50	31.96	6.50	0.99	50	8.22	31.97	6.45	1.04	24.89	308	0.22
72	6.06	32.17	6.09	1.45	75	5.98	32.21	6.08	1.47	25.38	262	0.29
96	5.50	32.48	5.91	1.63	100	5.43	32.53	5.86	1.67	25.69	232	0.35
144	5.08	32.98	4.86	2.18								

UW

BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	10^{-5} cm^3/g	dyn m

64-41 BROWN BEAR; August 27, 1954; 1715 GCT; 59°18.5'N, 145°35'W; sounding, 1200 fm; wind, 270°, 5 kt; weather, cloudy.

0a)	13.88	31.31	6.27	0.45	0	13.88	31.31	6.27	0.45	23.39	450	0.00
10	12.02	32.04	7.17	0.59	10	12.02	32.04	7.17	0.59	24.31	362	0.04
19	9.96	32.28	6.76	0.94	20	9.59	32.26	6.71	0.99	24.90	306	0.07
29	6.92	32.14	6.33	1.36	30	6.80	32.15	6.32	1.38	25.23	276	0.10
48	5.38	32.29	6.13	1.59	50	5.42	32.31	6.08	1.60	25.52	248	0.16
72	5.68	32.54	5.78	1.67	75	5.67	32.57	5.82	1.66	25.70	231	0.22
96	5.58	32.77	5.87	1.68	100	5.56	32.81	5.73	1.71	25.90	212	0.27
144	5.36	33.23	4.47	2.05	150	5.33	33.27	4.36	2.11	26.29	176	0.37
192	5.12	33.57	3.48	2.57	200	5.12	33.57	3.39	2.50	26.55	151	0.45
288	4.68	33.86	1.72	2.76	250	4.88	33.75	2.36	2.63	26.72	136	0.52
					300	4.68	33.88	1.67	2.74	26.85	124	0.59
190b)	5.20	33.49	3.74	2.37	400	4.37	33.98	1.04	2.90	26.96	114	0.70
285	4.78	33.87	1.81	2.66	500	4.10	34.07	0.67	2.98	27.06	106	0.82
474	4.16	34.05	0.72	2.98	600	3.88	34.15	0.55	2.97	27.14	98	0.92
712	3.66	34.21	0.45	2.98	700	3.68	34.20	0.46	2.98	27.20	93	1.01
950	3.30	34.28	0.39	3.07	800	3.52	34.24	0.41	3.02	27.25	89	1.10
1334	2.77	34.39	0.49	3.11	1000	3.23	34.29	0.39	3.08	27.32	83	1.28
					1200	2.95	34.35	0.43	3.11	27.39	77	1.44

64-42 BROWN BEAR; August 27, 1954; 2342 GCT; 59°04.5'N, 145°17'W; sounding, 2360 fm; wind, 220°, 8 kt; weather, cloudy.

0c)	14.22	31.43	5.98	0.61	0	14.22	31.43	5.98	0.61	23.41	448	0.00
10	14.10	31.42	6.16	0.56	10	14.10	31.42	6.16	0.56	23.43	447	0.04
19	10.09	32.21	6.90	0.82	20	9.81	32.21	6.81	0.88	24.83	313	0.08
29	7.67	32.19	6.19	1.28	30	7.52	32.19	6.19	1.30	25.16	282	0.11
48	5.62	32.24	6.16	1.53	50	5.62	32.26	6.17	1.53	25.46	254	0.17
72	5.53	32.49	6.07	1.59	75	5.49	32.53	6.03	1.61	25.69	232	0.23
96	5.26	32.81	5.61	1.72	100	5.26	32.87	5.49	1.75	25.98	204	0.28
144	5.28	33.37	4.12	2.03	150	5.31	33.42	3.91	2.07	26.41	164	0.38
192	-	33.67	2.80	2.49	200	5.26	33.68	2.79	2.32	26.62	145	0.45
288	-	33.82	2.18	2.68	250	4.85	33.77	2.46	2.51	26.74	134	0.52
					300	4.60	33.84	2.03	2.62	26.82	126	0.59
183d)	5.38	33.63	2.91	2.05	400	4.35	33.95	1.13	2.77	26.94	116	0.71
273	4.65	33.82	2.34	2.51	500	4.08	34.06	0.73	2.99	27.05	106	0.82
450	4.22	34.00	0.85	2.86	600	3.88	34.13	0.56	3.03	27.13	100	0.92
547	3.96	34.10	0.63	3.06	700	3.70	34.19	0.47	3.02	27.19	94	1.02
684	3.74	34.18	0.47	3.00	800	3.49	34.24	0.44	3.10	27.25	89	1.11
1050	3.04	34.35	0.43	3.15	1000	3.12	34.33	0.43	3.16	27.36	79	1.28
					1200	2.84	34.39	0.44	3.02	27.43	73	1.43
1351e)	2.64	34.43	0.50	2.91	1500	2.45	34.46	0.60	2.87	27.52	65	1.64
1819	2.10	34.53	0.99	2.77	2000	1.91	34.57	1.41	2.71	27.66	53	1.93
2294	1.68	34.62	1.95	2.59	2500	1.60	34.64	2.16	2.45	27.74	45	2.18
2773	1.53	34.66	2.45	2.34	3000	1.51	34.67	2.86	2.37	27.77	44	2.40
3532	1.48	-	3.27	2.41								
3924f)	1.47	34.70	3.08	2.41								

a) Overlapping second cast; wire angle, 02°.
b) First cast; wire angle, 09°.
c) Second cast; wire angle, 02°.
d) Overlapping third cast; wire angle, 17°.
e) First cast; wire angle, 15°.
f) Sixth cast; wire angle, missing.

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	$10^{-5}cm^3/g$	dyn m

BROWN BEAR; August 28, 1954; 1440 GCT; 58°24'N, 145°13'W; sounding, 2150 fm; wind, 220°, 9 kt; weather, cloudy. 64-43

0a)	14.16	32.10	6.16	0.58	0	14.16	32.10	6.16	0.58	23.94	398	0.00
9	14.18	32.09	6.97	0.54	10	14.29	32.10	6.88	0.57	23.91	401	0.04
19	13.62	32.22	6.44	0.72	20	13.16	32.23	6.48	0.69	24.24	370	0.08
28	9.96	32.32	6.72	0.58	30	9.40	32.36	6.68	0.70	25.01	296	0.11
47	6.01	32.60	6.36	1.42	50	5.93	32.62	6.31	1.44	25.71	230	0.16
71	5.38	32.77	6.12	1.58	75	5.25	32.79	6.19	1.60	25.92	210	0.22
94	4.83	32.90	6.23	1.71	100	4.89	33.00	5.85	1.76	26.13	190	0.27
141	5.23	33.48	3.72	2.12	150	5.38	33.49	3.35	2.16	26.46	160	0.36
188	5.16	33.84	2.31	2.70	200	5.08	33.84	2.17	2.65	26.77	131	0.43
281	4.38	33.94	1.32	2.88	250	4.68	33.87	1.64	2.68	26.84	124	0.50
					300	4.33	33.96	1.18	2.92	26.95	114	0.56
172b)	5.42	33.63	2.64	2.40	400	4.07	34.03	0.60	3.07	27.03	107	0.67
264	4.55	33.90	1.49	2.75	500	3.85	34.11	0.44	3.15	27.12	100	0.77
					600	3.65	34.19	0.45	3.19	27.20	92	0.87
448c)	3.96	34.07	0.43	3.13	700	3.47						
670	3.52	34.23	0.45	3.21	800	3.31						
894	3.16	34.33	0.44	3.24	1000	2.99						
1164	2.74	-	-	-								

BROWN BEAR; August 29, 1954; 0150 GCT; 57°24.5'N, 145°12'W; sounding, 2070 fm; wind, 320°, 12 kt; weather, partly cloudy. 64-44

0d)	14.28	32.23	6.22	0.58	0	14.28	32.23	6.22	0.58	24.01	391	0.00
9	14.26	32.24	6.29	0.59	10	13.42	32.24	6.42	0.63	24.20	374	0.04
18	8.40	32.27	6.92	0.97	20	7.86	32.29	6.81	1.10	25.19	279	0.07
27	6.36	32.35	6.51	1.44	30	6.15	32.39	6.50	1.47	25.50	250	0.10
46	5.26	32.59	6.43	1.60	50	5.10	32.64	6.37	1.65	25.82	219	0.14
68	4.63	32.79	6.34	1.77	75	4.59	32.79	6.54	1.71	25.99	203	0.20
					100	4.58	32.93	6.17	1.68	26.10	192	0.25
87e)	4.55	32.82	6.68	1.66	150	5.26	33.42	4.17	2.21	26.42	164	0.34
130	4.80	33.20	5.01	1.88	200	5.37	33.76	2.71	2.80	26.67	140	0.41
173	5.50	33.62	3.32	2.55	250	4.90	33.88	2.04	2.85	26.82	126	0.48
260	4.80	33.89	1.90	2.81	300	4.54	33.92	1.51	2.74	26.89	120	0.54
					400	4.21	34.03	0.92	2.87	27.02	109	0.65
185f)	5.50	33.70	2.92	2.71	500	3.96	34.11	0.62	2.95	27.10	101	0.76
277	4.62	33.90	1.68	2.71	600	3.76	34.18	0.53	3.00	27.18	94	0.86
461	4.04	34.08	0.66	2.93	700	3.57	34.24	0.46	3.03	27.25	89	0.95
692	3.58	34.24	0.47	3.03	800	3.39	34.28	0.41	3.03	27.30	84	1.04
920	3.12	34.34	0.41	3.08	1000	2.91	34.39	0.46	3.13	27.43	72	1.19
1020	2.85	34.40	0.47	3.18								

a) Overlapping third cast; wire angle, 07°.
b) First cast; wire angle, 25°.
c) Second cast; wire angle, 20°.
d) Second cast; wire angle, 18°.
e) Overlapping third cast; wire angle, 25°.
f) First cast; wire angle, 15°.

UW

BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ $10^{-5}cm^3/g$	ΔD dyn m
64-45	BROWN BEAR; August 29, 1954; 1836 GCT; 56°04.5'N, 145°14.5'W; sounding, 2070 fm; wind, 270°, 19 kt; weather, partly cloudy.											
0a)	13.87	32.67	6.17	0.86	0	13.87	32.67	6.17	0.86	24.44	350	0.00
10	13.83	32.69	6.22	0.90	10	13.83	32.69	6.22	0.90	24.46	348	0.04
19	13.45	32.72	6.23	0.96	20	12.87	32.73	5.40	1.01	24.68	327	0.07
29	8.49	32.83	7.17	1.37	30	8.19	32.84	1.20	1.40	25.57	243	0.10
48	4.33	32.95	7.11	1.75	50	4.28	32.96	7.09	1.75	26.16	187	0.14
73	3.78	33.05	6.78	1.72	75	3.73	33.06	6.79	1.70	26.29	174	0.18
97	3.41	33.17	6.35	1.56	100	3.46	33.22	5.98	1.59	26.45	160	0.23
146	3.95	33.78	2.04	2.16	150	3.95	33.79	1.96	2.24	26.85	122	0.30
194	3.91	33.87	1.36	2.84	200	3.97	33.88	1.23	2.92	26.92	116	0.36
287	3.92	34.00	0.73	2.98	250	3.95	33.96	0.90	2.97	26.99	110	0.41
					300	3.91	34.03	0.69	2.98	27.05	105	0.47
189b)	4.03	33.87	0.12	2.98	400	3.77	34.15	0.54	2.95	27.16	95	0.57
283	3.94	34.02	0.69	3.00	500	3.60	34.21	0.47	2.93	27.22	90	0.66
474	3.65	34.21	0.47	2.93	600	3.42	34.23	0.46	2.93	27.25	87	0.75
708	3.24	34.26	0.46	2.94	700	3.25	34.26	0.46	2.94	27.29	84	0.83
					800	3.09	34.32	0.48	2.96	27.36	78	0.91
932c)	2.89	34.39	0.52	2.97	1000	2.80	34.41	0.60	2.95	27.45	70	1.06
					1200	2.56	34.45	0.77	2.90	27.51	65	1.20
1398d)	2.34	34.50	0.78	2.87	1500	2.23	34.52	0.45	2.89	27.59	58	1.38
1876	1.90	34.60	0.15	2.86	2000	1.84	34.62	0.67	2.77	27.70	48	1.64
2354	1.70	34.66	1.88	2.56	2500	1.65	34.67	2.25	2.50	27.76	44	1.88
3306	1.50	34.68	2.87	2.46	3000	1.54	34.69	2.91	2.42	27.78	42	2.09
64-46	BROWN BEAR; August 30, 1954; 1237 GCT; 57°24.5'N, 143°43'W; sounding, 2050 fm; wind, 040°, 12 kt; weather, partly cloudy.											
0e)	14.32	32.55			0	14.32	32.55			24.25	368	0.00
10	14.28	32.56			10	14.28	32.56			24.27	367	0.04
19	13.97	32.75			20	13.32	32.77			24.62	333	0.07
29	8.53	32.87			30	8.26	32.87			25.59	241	0.10
48	4.77	32.88			50	4.68	32.89			26.06	196	0.14
72	3.92	32.97			75	3.87	32.98			26.22	182	0.19
96	3.64	33.09			100	3.68	33.14			26.36	168	0.24
143	4.03	33.55			150	4.07	33.61			26.70	137	0.31
191	4.22	33.86			200	4.19	33.87			26.89	119	0.38
287	4.02	34.00			250	4.06	33.94			26.96	113	0.43
					300	3.96	33.99			27.01	108	0.49
191f)	4.20	33.87			400	3.80	34.07			27.09	102	0.59
287	3.94	33.96			500	3.65	34.14			27.16	96	0.69
717	3.33	34.27			600	3.50	34.20			27.22	90	0.78
952	3.00	34.39			700	3.35	34.26			27.28	85	0.87
1238	2.62	34.47			800	3.21	34.32			27.35	80	0.95

a) Second cast; wire angle, 07°.
b) Overlapping third cast; wire angle, 10°.
c) Fourth cast; wire angle, 12°.
d) First cast; wire angle, 05°.
e) Overlapping second cast; wire angle, 00°.
f) First cast; wire angle, 00°.

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	10^{-5} cm^3/g	dyn m

BROWN BEAR; August 30, 1954; 1817 GCT; 57°37'N, 143°31'W; sounding, 2030 fm; wind, 040°, 9 kt; weather, partly cloudy. 64-47

0a)	14.27	32.20	6.12	0.53	0	14.27	32.20	6.12	0.53	23.99	393	0.00
9	14.20	32.15	6.14	0.56	10	13.81	32.21	6.65	0.50	24.09	383	0.04
19	12.18	32.29	6.87	0.67	20	11.84	32.31	6.87	0.72	24.55	340	0.08
28	9.41	32.45	6.82	1.04	30	8.92	32.46	6.82	1.09	25.17	281	0.11
47	5.94	32.59	6.69	1.42	50	5.91	32.63	6.61	1.46	25.72	229	0.16
74	5.58	32.88	6.00	1.68	75	5.55	32.89	5.99	1.68	25.96	206	0.21
95	5.20	33.05	5.53	1.73	100	5.34	33.15	5.03	1.78	26.19	184	0.26
142	5.80	33.73	2.89	2.20	150	5.59	33.75	3.44	2.29	26.64	143	0.34
192	4.92	33.86	2.52	2.69	200	4.81	33.87	4.45	2.72	26.82	126	0.41
286	4.60	34.01	1.38	2.97	250	4.71	33.97	2.34	2.91	26.91	117	0.47
					300	4.53	34.03	1.21	2.94	26.98	111	0.53
186b)	4.71	33.82	2.98	2.65	400	4.04	34.10	0.72	2.79	27.09	102	0.63
279	4.66	34.03	1.32	2.98	500	3.78	34.18	0.50	2.87	27.18	94	0.73
463	3.82	34.14	0.52	2.77	600	3.66	34.26	0.47	3.08	27.25	87	0.82
699	3.52	34.33	0.45	3.21	700	3.52	34.33	0.45	3.21	27.32	82	0.91
936	3.08	34.43	0.41	3.22	800	3.32	34.37	0.41	3.21	27.37	77	0.99
1218	2.64	34.53	0.56	3.23	1000	2.97	34.45	0.43	3.22	27.47	69	1.13
					1200	2.67	34.52	0.55	3.23	27.55	61	1.26

BROWN BEAR; August 31, 1954; 0509 GCT; 58°37'N, 142°26'W; sounding, 1690 fm; wind, 320°, 6 kt; weather, partly cloudy. 64-48

0c)	14.94	32.01	6.01	0.46	0	14.94	32.01	6.01	0.46	23.70	420	0.00
10	14.30	32.01	6.20	0.62	10	14.30	32.01	6.20	0.62	23.84	408	0.04
19	9.49	32.16	7.40	0.74	20	9.34	32.17	7.31	0.77	24.87	309	0.08
29	8.00	32.20	6.72	1.05	30	7.80	32.19	6.72	1.08	25.12	286	0.11
48	5.25	32.13	6.72	1.43	50	5.22	32.14	6.70	1.43	25.41	258	0.16
72	5.06	32.27	6.47	1.42	75	5.07	32.28	6.47	1.43	25.54	246	0.22
96	5.14	32.38	6.42	1.50	100	5.15	32.41	6.41	1.50	25.63	238	0.28
					150	5.13	32.77	6.03	1.74	25.92	211	0.40
143d)	5.17	32.72	6.10	1.66	200	5.07	33.19	5.04	2.18	26.26	179	0.49
191	4.99	33.10	5.44	2.09	250	5.38	33.64	3.37	2.45	26.58	150	0.58
287	5.50	33.87	2.33	2.57	300	5.38	33.90	2.27	2.61	26.78	131	0.65
					400	4.74	33.99	1.39	2.71	26.93	118	0.77
191e)	5.00	33.11	5.32	2.15	500	4.30	34.08	0.86	2.82	27.05	107	0.88
287	5.45	33.91	2.49	2.64	600	4.07	34.17	0.66	2.94	27.14	99	0.98
476	4.36	34.06	0.92	2.79	700	3.83	34.24	0.52	3.02	27.22	92	1.08
715	3.80	34.25	0.50	3.03	800	3.59	34.29	0.46	3.04	27.29	86	1.17
952	3.26	34.36	0.43	3.07	1000	3.17	34.38	0.43	3.08	27.40	76	1.33
1238	2.81	34.46	0.50	3.11	1200	2.86	34.45	0.48	3.11	27.48	69	1.48

a) Overlapping second cast; wire angle, 07°.
b) First cast; wire angle, 13°.
c) Second cast; wire angle, 00°.
d) Overlapping third cast; wire angle, missing.
e) First cast; wire angle, 00°.

UW

BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	$10^{-5}cm^3/g$	dyn m

64-49 BROWN BEAR; August 31, 1954; 1209 GCT; 59°07'N, 141°52'W; sounding, 820 fm; wind, 340°, 8 kt; weather, clear.

0a)	14.59	31.92	6.05	0.52	0	14.59	31.92	6.05	0.52	23.71	420	0.00
10	14.58	31.94	6.09	0.55	10	14.58	31.94	6.09	0.55	23.73	418	0.04
19	14.51	31.92	6.09	0.51	20	14.07	31.93	6.29	0.51	23.83	409	0.08
28	10.87	32.03	7.41	0.63	30	10.09	32.04	7.27	0.74	24.65	330	0.12
46	5.68	32.09	6.44	1.39	50	5.53	32.10	6.45	1.43	25.34	264	0.18
69	5.14	32.18	6.44	1.55	75	5.20	32.22	6.40	1.55	25.48	252	0.24
91	5.30	32.34	6.29	1.55	100	5.30	32.41	6.20	1.57	25.61	239	0.30
135	5.20	32.65	6.06	1.67	150	5.01	32.71	6.29	1.73	25.88	214	0.42
180	4.78	32.91	6.16	1.89	200	5.35	33.15	4.91	1.92	26.19	185	0.52
267	5.62	33.83	2.41	2.60	250	5.71	33.67	2.87	2.36	26.56	151	0.60
					300	5.32	33.86	2.11	2.66	26.76	133	0.67
172b)	4.92	32.82	6.40	1.81	400	4.61	33.95	1.34	2.82	26.91	119	0.80
256	5.69	33.73	2.69	2.44	500	4.29	34.05	0.86	2.94	27.02	109	0.91
409	4.56	33.96	1.29	2.83	600	4.03	34.13	0.55	3.03	27.11	101	1.02
602	4.02	34.13	0.55	3.03	700	3.78	34.18	0.49	3.04	27.18	96	1.12
811	3.55	34.23	0.45	3.06	800	3.57	34.23	0.45	3.06	27.24	90	1.21
1081	3.13	34.34	0.41	3.15	1000	3.23	34.31	0.41	3.12	27.34	82	1.38

64-50 BROWN BEAR; August 31, 1954; 1504 GCT; 59°10'N, 141°38.5'W; sounding, 118 fm; wind, 270°, 12 kt; weather, partly cloudy; wire angle, 08°.

0	14.66	31.97	6.08	0.50	0	14.66	31.97	6.08	0.50	23.73	417	0.00
9	14.65	31.97	6.09	0.53	10	14.61	31.97	6.17	0.52	23.74	417	0.04
19	13.10	32.03	6.75	0.57	20	12.64	32.05	6.83	0.61	24.20	373	0.08
28	9.57	32.16	7.21	0.88	30	9.13	32.16	7.07	0.96	24.90	307	0.12
47	6.36	32.20	6.24	1.45	50	6.21	32.21	6.27	1.47	25.35	264	0.17
71	5.53	32.31	6.34	1.57	75	5.55	32.34	6.27	1.58	25.53	247	0.24
95	5.59	32.50	6.00	1.63	100	5.54	32.53	6.01	1.63	25.68	233	0.30
142	5.21	32.79	5.94	1.77	150	5.16	32.84	5.88	1.81	25.97	206	0.41
189	4.94	33.10	5.38	2.12								

64-51 BROWN BEAR; August 31, 1954; 2011 GCT; 59°28.5'N, 141°15'W; sounding, 160 fm; wind, 320°, 5 kt; weather, cloudy; wire angle, 03°.

0	13.66	29.57	6.51	0.40	0	13.66	29.57	6.51	0.40	22.09	574	0.00
10	13.15	31.91	6.73	0.55	10	13.15	31.91	6.73	0.55	24.00	393	0.05
19	9.52	32.09	7.27	0.74	20	9.31	32.10	7.17	0.80	24.82	314	0.08
29	7.71	32.15	6.45	1.23	30	7.58	32.15	6.42	1.26	25.12	286	0.11
48	5.88	32.21	5.97	1.62	50	5.82	32.22	5.96	1.63	25.40	259	0.17
72	5.43	32.34	5.91	1.69	75	5.45	32.37	5.92	1.68	25.57	244	0.23
96	5.48	32.59	5.94	1.66	100	5.40	32.62	5.92	1.69	25.77	225	0.29
143	4.97	32.99	5.29	2.03	150	4.97	33.05	5.10	2.09	26.16	188	0.39
191	5.38	33.46	3.45	2.42								

a) Overlapping second cast; wire angle, 08°.
b) First cast; wire angle, 28°.

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	$10^5 cm^3/g$	dyn m

64-52

BROWN BEAR; September 1, 1954; 0230 GCT; 58°53'N, 141°10'W; sounding, 950 fm; wind, 320°, 7 kt; weather, cloudy.

0a)	14.92	32.00	6.04	0.48	0	14.92	32.00	6.04	0.48	23.70	420	0.00
10	14.36	32.03	6.20	0.49	10	14.36	32.03	6.20	0.49	23.84	407	0.04
19	10.48	32.12	7.44	0.60	20	10.16	32.12	7.38	0.65	24.70	326	0.08
29	7.76	32.14	6.92	1.09	30	7.60	32.14	6.88	1.15	25.11	287	0.11
48	5.56	32.13	6.38	1.80	50	5.53	32.13	6.38	1.77	25.37	262	0.16
72	5.26	32.21	6.34	1.53	75	5.25	32.22	6.33	1.53	25.47	253	0.23
96	5.19	32.34	6.25	1.53	100	5.22	32.37	6.20	1.53	25.59	241	0.29
143	5.33	32.69	5.78	1.67	150	5.24	32.74	5.78	1.73	25.88	214	0.40
191	4.98	33.05	5.33	2.11	200	5.03	33.16	5.03	2.13	26.24	181	0.50
286	5.48	33.85	2.42	2.64	250	5.39	33.61	3.33	2.44	26.55	152	0.59
					300	5.35	33.86	2.23	2.67	26.75	134	0.66
187b)	4.87	33.02	5.58	1.99	400	4.58	33.97	1.25	2.92	26.93	117	0.78
281	5.52	33.82	2.41	2.59	500	4.13	34.07	0.75	3.03	27.06	106	0.89
462	4.22	34.03	0.83	3.02	600	3.91	34.15	0.58	3.05	27.14	98	1.00
691	3.73	34.21	0.47	3.06	700	3.72	34.21	0.46	3.06	27.21	93	1.09
922	3.38	34.31	0.38	3.05	800	3.57	34.26	0.41	3.05	27.26	88	1.18
1199	2.93	34.39	0.45	3.11	1000	3.26	34.34	0.38	3.06	27.36	80	1.35

64-53

BROWN BEAR; September 1, 1954; 0833 GCT; 58°24'N, 141°12'W; sounding, 1870 fm; wind, 270°, 6 kt; weather, clear.

0c)	14.60	32.02	6.16	0.49	0	14.60	32.02	6.16	0.49	23.78	412	0.00
10	14.32	31.99	6.23	0.50	10	14.32	31.99	6.23	0.50	23.82	409	0.04
19	12.29	32.08	6.87	0.59	20	11.93	32.08	6.85	0.64	24.36	358	0.08
29	9.26	32.10	6.72	0.99	30	9.10	32.11	6.66	1.02	24.86	310	0.11
48	6.88	32.20	5.90	1.43	50	6.77	32.21	5.90	1.45	25.28	271	0.17
72	5.94	32.30	5.89	1.58	75	5.91	32.32	5.90	1.57	25.47	253	0.24
96	5.70	32.46	5.95	1.56	100	5.62	32.48	6.01	1.57	25.63	238	0.30
143	5.16	32.78	5.98	1.80	150	5.21	32.85	5.72	1.86	25.97	206	0.41
191	5.31	33.19	4.57	2.14	200	5.41	33.31	4.10	2.25	26.31	174	0.50
286	5.28	33.87	2.18	2.85	250	5.37	33.67	2.88	2.52	26.60	147	0.58
					300	5.21	33.88	2.04	2.71	26.79	130	0.65
191d)	5.51	33.28	4.11	2.26	400	4.64	33.98	1.23	2.89	26.93	117	0.78
286	5.31	33.87	2.17	2.52	500	4.25	34.07	0.74	3.02	27.04	107	0.89
477	4.30	34.05	0.80	3.00	600	4.05	34.14	0.54	3.10	27.12	101	0.99
714	3.82	34.21	0.39	3.15	700	3.85	34.20	0.40	3.14	27.19	95	1.09
952	3.35	34.30	0.38	3.16	800	3.65	34.24	0.38	3.15	27.24	90	1.18
1238	2.82	34.42	0.47	3.18	1000	3.26	34.32	0.39	3.16	27.34	82	1.35
					1200	2.89	34.40	0.45	3.18	27.44	73	1.51

a) Overlapping second cast; wire angle, 05°.
b) First cast; wire angle, 10°.
c) Overlapping second cast; wire angle, 02°.
d) First cast; wire angle, 03°.

UW

BB-64

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m
64-54	BROWN BEAR; September 1, 1954; 1848 GCT; 57°28.5'N, 141°14.5'W; sounding, 1890 fm; wind, 020°, 8 kt; weather, cloudy.											
0a)	14.64	32.30	6.13	0.51	0	14.64	32.30	6.13	0.51	23.99	393	0.00
10	14.58	32.25	6.15	0.50	10	14.58	32.25	6.15	0.50	23.97	396	0.04
19	14.44	32.29	7.03	0.75	20	13.63	32.30	7.04	0.92	24.20	373	0.08
29	7.93	32.42	7.02	1.99	30	7.76	32.43	7.00	1.93	25.31	267	0.11
48	5.55	32.61	6.56	1.34	50	5.52	32.67	6.50	1.39	25.79	222	0.16
72	5.24	32.83	5.82	1.79	75	5.21	32.67	5.79	1.78	25.83	218	0.21
96	5.14	32.02	5.33	1.82	100	5.25	32.22	5.06	1.88	25.47	253	0.27
143	5.88	33.68	2.95	2.38	150	5.82	33.72	2.83	2.42	26.59	148	0.37
191	5.47	33.89	2.21	2.72	200	5.38	33.89	2.18	2.66	26.77	130	0.44
286	4.70	33.96	1.41	2.85	250	4.96	33.93	1.75	2.77	26.85	123	0.50
					300	4.66	33.97	1.39	2.85	26.92	117	0.56
191b)	5.46	33.87	2.33	2.57	400	4.35	34.02	0.86	2.94	26.99	111	0.68
286	4.72	33.95	1.53	2.83	500	4.09	34.09	0.57	3.03	27.08	104	0.79
477	4.14	34.07	0.58	3.00	600	3.87	34.17	0.50	3.12	27.16	96	0.89
715	3.62	34.25	0.45	3.17	700	3.65	34.24	0.46	3.17	27.24	90	0.98
953	3.15	34.38	0.38	3.05	800	3.44	34.31	0.40	3.10	27.32	83	1.07
1239	2.69	34.43	0.48	3.22	1000	3.07	34.40	0.38	3.05	27.42	73	1.22
					1200	2.75	34.43	0.46	3.18	27.47	69	1.36
64-55	BROWN BEAR; September 2, 1954; 0816 GCT; 56°11'N, 141°13'W; sounding, 1990 fm; wind, calm; weather, cloudy.											
0c)	15.09	32.47	6.19	0.67	0	15.09	32.47	6.19	0.67	24.03	390	0.00
10	14.55	32.56	6.32	0.85	10	14.55	32.56	6.32	0.85	24.21	372	0.04
19	12.87	32.54	6.59	0.88	20	12.14	32.54	6.66	0.92	24.68	328	0.07
29	7.12	32.56	7.16	1.24	30	7.01	32.57	7.12	1.25	25.53	247	0.10
48	5.53	32.70	6.75	1.44	50	5.48	32.71	6.76	1.47	25.83	218	0.15
71	5.02	32.83	6.72	1.71	75	4.91	32.87	6.71	1.72	26.02	200	0.20
95	4.64	32.97	6.32	1.80	100	4.83	32.86	5.87	1.85	26.02	200	0.25
142	5.82	32.62	3.15	2.23	150	5.79	32.88	3.01	2.31	25.93	210	0.35
190	5.57	33.86	2.42	2.57	200	5.49	33.87	2.31	2.63	26.74	133	0.44
					250	5.07	33.93	1.83	2.69	26.84	124	0.50
190d)	5.60	33.87	2.41	2.67	300	4.79	33.97	1.44	2.75	26.91	119	0.56
286	4.83	33.96	1.52	2.73	400	4.48	34.04	0.97	2.86	26.99	111	0.68
476	4.27	34.09	0.72	2.93	500	4.21	34.10	0.67	2.94	27.07	104	0.79
714	3.68	34.23	0.44	3.02	600	3.95	34.17	0.54	2.98	27.15	97	0.89
952	3.16	34.35	0.43	3.11	700	3.71	34.22	0.45	3.01	27.22	92	0.98
1429	2.44	34.50	0.69	3.16	800	3.48	34.28	0.43	3.06	27.29	86	1.07
					1000	3.07	34.37	0.44	3.11	27.40	76	1.23
1429b)	2.43	34.49	0.67	3.01	1200	2.75	34.44	0.53	3.10	27.48	68	1.38
1905	2.04	34.59	1.21	2.99	1500	2.37	34.52	0.76	3.08	27.58	60	1.57
2381	1.76	34.61	1.77	2.70	2000	1.97	34.59	1.32	2.91	27.67	52	1.85
2858	1.61	34.65	2.27	2.71	2500	1.72	34.62	1.89	2.71	27.71	48	2.10
3333	1.52	34.68	2.77	2.67	3000	1.58	34.66	2.42	2.70	27.75	45	2.33

a) Overlapping second cast; wire angle, 00°.
b) First cast; wire angle, 00°.
c) Second cast; wire angle, 00°.
d) Overlapping third cast; wire angle, 00°.

OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ $10^5 cm^3/g$	ΔD dyn m
BROWN BEAR; September 2, 1954; 2255 GCT; 56°09'N, 138°56'W; sounding, 1720 fm; wind, 290°, 3 kt; weather, cloudy.												64-56
0a)	15.36	32.30	5.51	0.66	0	15.36	32.30	5.51	0.66	23.84	408	0.00
10	14.90	32.28	5.52	0.52	10	14.90	32.28	5.52	0.52	23.92	400	0.04
19	10.73	32.31	6.15	0.77	20	10.28	32.32	6.18	0.82	24.84	313	0.08
29	7.09	32.42	6.33	1.15	30	6.96	32.43	6.31	1.17	25.42	257	0.10
47	5.40	32.56	6.06	1.43	50	5.32	32.60	6.08	1.46	25.76	225	0.15
71	5.00	32.86	5.88	1.68	75	5.01	32.89	5.70	1.71	26.03	200	0.20
95	5.10	33.07	4.78	1.88	100	5.23	33.17	4.47	1.94	26.22	182	0.25
142	5.78	33.76	2.62	2.37	150	5.67	33.78	2.55	2.44	26.65	142	0.33
190	5.03	33.87	2.18	2.80	200	5.13	33.88	2.04	2.79	26.80	128	0.40
286	4.57	33.98	1.11	3.03	250	4.79	33.95	1.44	2.95	26.89	120	0.46
					300	4.53	34.01	1.03	3.04	26.97	113	0.52
190b)	5.36	33.87	2.17	2.70	400	4.21	34.11	0.65	3.02	27.08	103	0.63
286	4.58	34.00	1.08	3.06	500	3.95	34.19	0.44	3.06	27.17	95	0.73
476	4.00	34.18	0.45	3.03	600	3.74	34.24	0.38	3.15	27.23	90	0.82
714	3.50	34.29	0.36	3.19	700	3.53	34.28	0.36	3.19	27.28	85	0.91
952	3.01	34.40	0.40	3.06	800	3.31	34.33	0.37	3.12	27.34	80	0.99
1238	2.52	34.48	0.56	3.13	1000	2.92	34.42	0.43	3.05	27.45	70	1.14
					1200	2.58	34.47	0.54	3.11	27.52	64	1.28
BROWN BEAR; September 3, 1954; 0933 GCT; 56°09'N, 136°47'W; sounding, 1320 fm; wind, 320°, 10 kt; weather, clear.												64-57
0c)	13.48	31.30	5.94	0.45	0	13.48	31.30	5.94	0.45	23.46	444	0.00
10	13.50	31.29	5.97	0.47	10	13.50	31.29	5.97	0.47	23.45	445	0.04
19	10.74	31.96	5.60	1.01	20	10.52	31.96	5.52	1.06	24.52	343	0.08
29	9.00	32.03	5.06	1.39	30	9.01	32.06	5.12	1.37	24.84	312	0.12
48	8.55	32.42	5.64	1.23	50	8.31	32.44	5.54	1.29	25.24	274	0.18
71	6.44	32.64	5.08	1.66	75	6.27	32.66	5.32	1.63	25.69	232	0.24
95	5.65	32.77	5.96	1.59	100	5.63	32.81	5.69	1.66	25.89	213	0.29
142	5.61	33.19	3.95	2.13	150	5.68	33.30	3.80	2.16	26.27	178	0.39
190	5.88	33.73	3.11	2.18	200	5.80	33.73	3.00	2.34	26.60	147	0.47
285	5.16	33.89	2.16	2.70	250	5.42	33.83	2.51	2.53	26.72	136	0.54
					300	5.12	33.89	2.06	2.67	26.80	128	0.61
190d)	5.89	33.69	3.10	2.41	400	4.70	33.98	1.34	2.82	26.92	118	0.73
282	5.23	33.88	2.22	2.57	500	4.41	34.06	0.87	2.95	27.02	110	0.85
466	4.47	34.03	0.99	2.90	600	4.22	34.13	0.60	3.05	27.09	103	0.95
701	4.02	34.19	0.43	3.09	700	4.02	34.19	0.43	3.09	27.16	97	1.05
934	3.50	-	0.36	2.95	800	3.80	34.25	0.38	3.00	27.23	91	1.15
1215	2.90	34.41	0.40	3.09	1000	3.36	34.34	0.36	2.95	27.35	81	1.32
					1200	2.93	34.41	0.39	3.07	27.44	72	1.47

a) Overlapping second cast; wire angle, missing.
b) First cast; wire angle, 00°.
c) Overlapping second cast; wire angle, 05°.
d) First cast; wire angle, 05°.

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OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m
64-58 BROWN BEAR; September 3, 1954; 1605 GCT; 56°09'N, 135°51'W; sounding, 800 fm; wind, 320°, 8 kt; weather, partly cloudy.												
0a)	11.24	31.38	6.75	0.64	0	11.24	31.38	6.75	0.64	23.94	398	0.00
9	11.12	31.37	6.76	0.91	10	10.96	31.41	6.72	0.94	24.01	391	0.04
18	9.81	31.70	6.24	1.18	20	9.51	31.74	6.04	1.28	24.51	344	0.08
26	8.82	31.88	5.61	1.49	30	8.87	32.01	5.81	1.36	24.82	314	0.11
44	8.66	32.34	6.01	1.19	50	8.17	32.32	5.62	1.42	25.17	281	0.17
66	7.10	32.41	4.75	1.83	75	6.68	32.60	4.39	1.88	25.60	241	0.23
88	6.21	32.83	3.98	1.96	100	6.06	32.96	3.85	2.01	25.96	207	0.29
132	5.80	33.28	3.49	2.19	150	5.81	33.45	3.25	2.33	26.37	168	0.38
176	5.68	33.59	2.90	2.55	200	5.67	33.72	2.79	2.55	26.60	147	0.46
266	5.32	33.91	2.32	2.74	250	5.45	33.87	2.43	2.66	26.75	133	0.53
					300	5.13	33.96	1.97	2.78	26.86	123	0.60
174b)	5.88	33.69	3.00	2.43	400	4.58	34.09	1.18	2.99	27.02	108	0.71
261	5.44	33.89	2.35	2.64	500	4.32	34.14	0.83	3.08	27.09	103	0.82
437	4.42	34.13	0.96	3.04	600	4.16	34.17	0.65	3.12	27.13	100	0.92
660	4.05	34.19	0.56	3.14	700	3.97	34.21	0.52	3.14	27.18	95	1.02
885	3.60	34.30	0.39	3.16	800	3.77	34.26	0.43	3.14	27.24	90	1.11
1159	3.04	34.40	0.47	3.29	1000	3.37	34.35	0.39	3.20	27.35	80	1.28
64-59 BROWN BEAR; September 3, 1954; 1927 GCT; 56°09'N, 135°39'W; sounding, 390 fm; wind, 270°, 9 kt; weather, partly cloudy.												
0c)	11.32	31.43	6.81	1.06	0	11.32	31.43	6.81	1.06	23.97	395	0.00
10	10.90	31.47	6.74	1.00	10	10.90	31.47	6.74	1.00	24.07	385	0.04
19	10.16	31.60	6.45	0.70	20	9.95	31.61	6.33	0.82	24.34	360	0.08
29	8.46	31.74	5.42	1.66	30	8.43	31.76	5.38	1.67	24.69	326	0.11
48	7.86	32.13	4.93	1.81	50	7.75	32.17	5.02	1.78	25.11	287	0.17
71	6.78	32.56	5.52	1.65	75	6.64	32.62	5.47	1.69	25.62	239	0.24
95	6.10	32.88	5.06	1.87	100	6.05	32.94	4.83	1.90	25.94	208	0.29
143	5.76	33.37	3.33	2.16	150	5.76	33.44	3.23	2.22	26.37	168	0.39
190	5.76	33.76	2.81	2.56	200	5.61	33.78	2.61	2.56	26.66	141	0.46
285	5.02	33.95	1.86	2.84	250	5.23	33.88	2.12	2.72	26.78	130	0.53
					300	4.92	33.97	1.69	2.85	26.89	120	0.60
187d)	5.66	33.74	2.68	2.46	400	4.49	34.08	1.06	2.99	27.03	108	0.71
281	5.01	33.94	1.79	2.78								
470	4.34	34.12	0.80	3.00								
64-60 BROWN BEAR; September 3, 1954; 2322 GCT; 56°09'N, 135°12.5'W; sounding, 175 fm; wind, 270°, 14 kt; weather, partly cloudy; wire angle, 17°.												
0	10.65	30.44	6.65	1.18	0	10.65	30.44	6.65	1.18	23.31	457	0.00
9	12.27	31.47	6.59	0.91	10	12.33	31.51	6.59	0.88	23.84	407	0.04
18	12.60	31.71	6.55	0.76	20	12.65	31.70	6.54	0.77	23.93	399	0.08
27	12.42	31.74	6.47	0.82	30	11.68	31.88	6.36	0.89	24.25	369	0.12
45	8.86	32.36	5.92	1.20	50	8.48	32.37	5.84	1.28	25.16	282	0.19
68	7.37	32.45	5.60	1.53	75	7.06	32.51	5.64	1.61	25.47	253	0.25
91	6.48	32.66	5.53	1.78	100	6.36	32.81	5.14	1.86	25.80	222	0.31
136	5.90	33.29	3.76	2.22	150	5.68	33.42	3.24	2.42	26.37	168	0.41
181	5.34	33.64	2.44	2.73	200	5.24	33.72	2.21	2.84	26.66	142	0.49
226	5.22	33.78	2.18	2.88								

a) Overlapping second cast; wire angle, 24°.
b) First cast; wire angle, 24°.
c) Overlapping second cast; wire angle, missing.
d) First cast; wire angle, 00°.

OBSERVED					INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	µg at/L	g/L	10^{-5} cm^3/g	dyn m

BROWN BEAR; October 15, 1954; 0449 GCT;[a] 47°45'N, 124°44.5'W; sounding, 35 fm; wind, 160°, 12 kt; weather, cloudy; wire angle, 05°. 67-1

0	13.17	31.27	5.78	0.77	0	13.17	31.27	5.78		23.47	442	0.00
10	13.02	31.29	5.84	0.71	10	13.02	31.29	5.84		23.54	436	0.04
20	12.80	31.38	5.69	0.88	20	12.80	31.38	5.69		23.66	425	0.09
30	10.16	32.19	4.54	1.65	30	10.16	32.19	4.54		24.76	320	0.12
50	7.78	32.98	3.28	2.34	50	7.78	32.98	3.28		25.74	227	0.18

BROWN BEAR; October 16, 1954; 0838 GCT; 47°47.5'N, 125°11'W; sounding, 250 fm; wind, 220°, 12 kt; weather, cloudy; wire angle, 10°. 67-6

0	13.08	31.52	5.92	0.75	0	13.08	31.52	5.92	0.75	23.71	420	0.00
10	13.10	31.52	5.95	0.72	10	13.10	31.52	5.95	0.72	23.70	420	0.04
20	13.04	31.52	5.99	0.76	20	13.04	31.52	5.99	0.76	23.72	420	0.08
30	10.16	32.37	6.10	1.10	30	10.16	32.37	6.10	1.10	24.90	307	0.12
49	8.37	32.56	5.70	1.34	50	8.31	32.58	5.59	1.39	25.35	264	0.18
74	7.41	33.00	3.66	2.20	75	7.42	33.02	3.64	2.20	25.83	219	0.24
98	7.57	33.44	3.20	2.26	100	7.56	33.46	3.17	2.28	26.15	189	0.29
148	7.22	33.81	2.43	2.59	150	7.20	33.81	2.41	2.59	26.48	159	0.38
197	6.82	33.90	1.96	2.63	200	6.80	33.90	1.94	2.63	26.60	147	0.45
296	6.11	33.98	1.62	2.72	250	6.42	33.96	1.68	2.68	26.70	139	0.52

BROWN BEAR; October 16, 1954; 1227 GCT; 47°49.5'N, 125°25'W; sounding, 500 fm; wind, 140°, 23 kt; weather, cloudy. 67-11

0b)	12.74	31.65	5.77	0.78	0	12.74	31.65	5.77	0.78	23.87	404	0.00
10	12.79	31.65	5.80	0.80	10	12.79	31.65	5.80	0.80	23.86	405	0.04
19	12.78	31.63	5.78	0.82	20	12.86	31.61	5.79	0.82	23.82	410	0.08
29	12.75	31.64	5.69	0.82	30	12.37	31.71	5.59	0.80	23.99	394	0.12
48	7.56	32.66	4.36	0.82	50	7.48	32.68	4.40	0.97	25.55	245	0.18
70	7.06	32.94	4.37	1.91	75	7.13	33.05	4.10	1.89	25.89	213	0.24
91	7.32	33.36	3.39	1.89	100	7.63	33.48	3.55	2.02	26.16	188	0.29
132	7.43	33.82	2.79	2.36	150	6.82	33.92	1.99	2.42	26.61	145	0.38
145	6.77	33.92	1.88	-	200	6.81	33.93	2.21	2.54	26.62	145	0.45
					250	6.48	33.98	1.92	2.61	26.71	138	0.52
173c)	7.00	33.91	2.37	2.49	300	6.17	34.01	1.60	2.65	26.77	132	0.59
282	6.28	34.00	1.72	2.64	400	5.61	34.08	1.04	2.68	26.90	121	0.71
417	5.52	34.09	0.96	2.68	500	5.12	34.14	0.66	2.64	27.00	112	0.83
652	4.48	34.23	0.31	2.64	600	4.69	34.20	0.40	2.63	27.10	104	0.94
892	3.67	34.37	0.31	2.82	700	4.30	34.26	0.26	2.66	27.19	95	1.04
					800	3.95	34.32	0.24	2.72	27.27	88	1.13

a) Times reported are those of the messenger release of the first cast.
b) Overlapping second cast; wire angle, 13°.
c) First cast; wire angle, 20°.

UW

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OBSERVED					INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ 10^{-5} cm^3/g	ΔD dyn m
67-16	BROWN BEAR; October 16, 1954; 2351 GCT; 47°57.5'N, 126°16'W; sounding, 1010 fm; wind, 160°, 20 kt; weather, overcast.											
0a)	13.73	31.96	5.92	0.62	0	13.73	31.96	5.92	0.62	23.92	400	0.00
9	13.87	31.95	5.97	0.59	10	13.85	31.97	5.94	0.59	23.90	402	0.04
17	13.57	32.09	5.77	0.65	20	13.47	32.09	5.78	0.74	24.07	386	0.08
25	12.94	32.13	5.78	0.88	30	11.01	32.30	5.68	1.00	24.70	326	0.12
42	7.83	32.58	5.54	1.29	50	7.59	32.59	5.66	1.52	25.46	253	0.17
63	7.26	32.66	5.68	1.76	75	7.00	32.76	5.51	1.74	25.68	233	0.23
85	6.91	32.89	5.25	1.78	100	7.33	33.28	4.31	2.04	26.04	199	0.29
122	7.65	33.69	3.29	2.31	150	7.33	33.80	2.88	2.38	26.45	161	0.38
172	7.09	33.87	2.61	2.44	200	6.80	33.90	2.39	2.56	26.60	147	0.46
260	6.17	33.96	2.00	2.84	250	6.34	33.95	2.02	2.74	26.70	138	0.53
					300	6.02	33.99	1.72	2.82	26.77	132	0.59
254b)	6.38	33.97	1.95	2.69	400	5.47	34.06	1.21	2.96	26.90	121	0.72
434	5.30	34.08	1.05	3.01	500	5.00	34.12	0.80	3.14	27.00	112	0.84
659	4.38	34.23	0.34	3.28	600	4.59	34.19	0.48	3.26	27.10	103	0.95
885	3.74	34.38	-	3.01	700	4.26	34.26	0.25	3.22	27.19	95	1.04
1289	2.74	34.50	0.62	3.00	800	3.97	34.33	0.10	3.09	27.28	87	1.14
					1000	3.44	34.43	0.07	2.95	27.41	75	1.30
					1200	2.94	34.49	0.37	2.95	27.51	67	1.44
67-17	BROWN BEAR; October 17, 1954; 0704 GCT; 47°59.5'N, 125°21'W; sounding, 300 fm; wind, 200°, 28 kt; weather, overcast; wire angle, 35°.											
0	12.20	31.93	5.62	1.14	0	12.20	31.93	5.62		24.19	374	0.00
8	12.20	31.92	5.62	1.11	10	12.46	31.90	5.67		24.12	381	0.04
16	12.16	31.96	5.61	1.10	20	10.37	32.20	5.25		24.73	323	0.07
25	8.68	32.43	5.04	1.65	30	8.12	32.47	5.71		25.29	270	0.10
41	7.30	32.73	6.03	1.54	50	7.29	33.32	4.08		26.08	195	0.15
61	7.21	33.79	2.49	1.97	75	7.01	33.98	1.72		26.64	142	0.19
82	6.87	33.90	1.88	2.53								

a) Overlapping third cast; wire angle, 20°.
b) Second cast; wire angle, 33°.

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